

No. 16132 ✓

*See also
Vol. 3095*

United States
Court of Appeals
for the Ninth Circuit

JAMES MOON, EDMOND M. WAGNER and
PHILIP SUBKOW, Appellants,

vs.

CABOT SHOPS, INC., and HOWARD SUPPLY
COMPANY, Appellees.

CABOT SHOPS, INC., and HOWARD SUPPLY
COMPANY, Appellants,

vs.

JAMES MOON, EDMOND M. WAGNER and
PHILIP SUBKOW, Appellees.

Transcript of Record

In Three Volumes

VOLUME I.

(Pages 1 to 320, inclusive)

Appeals from the United States District Court for the
Southern District of California,
Central Division

FILED

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur.]

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NAMES AND ADDRESSES OF ATTORNEYS

For Appellant:

PHILIP SUBKOW,
626 Roosevelt Building,
727 West 7th Street,
Los Angeles 17, California.

For Appellee:

LYON & LYON,
CHARLES G. LYON,
811 West 7th Street,
Los Angeles 17, California,

KENWAY, JENNEY, WITTER &
HILDRETH,
HERBERT P. KENWAY,
GEORGE W. CROWLEY,
24 School Street,
Boston 8, Massachusetts,

KENNETH W. BROWN,
77 Franklin Street,
Boston 10, Massachusetts. [1]*

* Page numbers appearing at bottom of page of Original Transcript of Record.

In The United States District Court, Southern
District of California, Central Division

Civil No. 289-57 WM

JAMES MOON, EDMOND M. WAGNER and
PHILIP SUBKOW, Plaintiffs,

vs.

CABOT SHOPS, INC., a corporation, and CABOT
SHOPS, INC., dba Franks Manufacturing
Company, HOWARD SUPPLY COMPANY,
a corporation, Defendants.

COMPLAINT—INFRINGEMENT OF PATENT
NO. 2,671,537 AND FOR INJUNCTION

I.

This Court has jurisdiction of the herein action under the Patent Laws of the United States, under Title 28 U.S.C.A. Sec. 1338(a).

James Moon, Edmond M. Wagner and Philip Subkow are citizens of the State of California, and reside within the Southern District of California, Central Division.

Cabot Shops, Inc. is a Massachusetts corporation, having an established and regular place of business in, and is licensed to, and is doing business in the Southern District of California, Central Division.

Howard Supply Co. is a California corporation and has a regular and established place of business

in the Southern [2] District of California, Central Division.

II.

On March 9, 1954, United States Letters Patent No. 2,671,537 was duly and legally issued to Western Oil Tool and Engineering Co., Inc., a California corporation, as assignee of James Moon, and that by an instrument in writing, dated February 25, 1955, said patent was assigned by Western Oil Tool and Engineering Co., Inc., jointly to James Moon and Edmond M. Wagner, and that by instruments in writing, dated March 2, 1955 and January 25, 1957, said James Moon and Edmond M. Wagner did assign to Philip Subkow an undivided one-third interest in and to said Letters Patent, and that said James Moon, Edmond M. Wagner and Philip Subkow have been and are still jointly the owners of those Letters Patent.

III.

Defendants have for a long time past and still are wilfully infringing those Letters Patent by making and by selling and using within the Southern District of California, and elsewhere, the Derrick Mounting for Portable Drilling and Servicing Rigs embodying the patented invention and will continue to do so unless enjoined by this Court.

That defendants Cabot Shops, Inc. have induced and joined with defendant Howard Supply Company and others to infringe said Letters Patent by selling and using or using the said Derrick Mounting for Drilling and Portable Rigs [3] embodying

the patented invention within the Southern District of California, and elsewhere.

IV.

Plaintiffs have notified Defendants of their said infringement and have given written notice of said infringement to defendant Cabot Shops, Inc.

Wherefore, plaintiffs demand a preliminary injunction against further infringement by defendants and those controlled by said defendant, or any of them, an accounting for profits and damages and an assessment of costs, including plaintiffs' attorney's fees, against defendants, and such other or additional relief as may seem meet and just to this Court.

/s/ PHILIP SUBKOW,

Attorney for Plaintiffs James
Moon, Edmond M. Wagner.

/s/ PHILIP SUBKOW,

In propria persona. [4]

Duly Verified. [5]

[Endorsed]: Filed February 27, 1957.

[Title of District Court and Cause.]

ANSWER

The defendants, Cabot Shops, Inc. and Howard Supply Company, for their answer to the complaint herein say:

1. Defendants admit the allegations of paragraph

1 of the complaint, except in so far as reference is made to John Doe I, John Doe II, and John Doe III, concerning whom defendants have no knowledge.

2. Defendants admit that United States Letters Patent No. 2,671,537 was issued March 9, 1954 but deny that said patent was either duly or legally issued; defendants are without knowledge concerning the assignments recited in paragraph 2 of the complaint and leave plaintiffs to their proof thereof.

3. Defendants deny each and every allegation of paragraph 3 of the complaint.

4. Defendants admit the allegations of paragraph 4 of the complaint.

And for other and further defenses to the allegations of the complaint, defendants say:

5. The Letters Patent in suit No. 2,671,537 are invalid because the alleged invention or improvements described therein and attempted to be patented thereby, and every material and substantial part thereof, do not embody substantial variations or changes from that which belonged to the state of the art as it existed at the time of the alleged inventions thereof and did not then involve the exercise of the inventive faculty or constitute the subject matter of invention proper to be secured by the grant of Letters Patent within the meaning or intent of the statutes relating thereto.

6. Every material element and combination of elements, and every product recited in the claims

of said Letters Patent in suit No. 2,671,537 were disclosed and set forth in various prior publications and Letters Patent.

7. The Letters Patent in suit No. 2,671,537 is invalid for the reason that the alleged inventions or improvements described therein and set forth in the claims thereof were, prior to the plaintiff Moon's alleged invention and for more than one year prior to the filing of the application for Letters Patent, in public use.

Wherefore defendants deny that plaintiffs are entitled to the relief prayed for or to any other relief and therefore pray that the complaint be dismissed with costs and counsel fees to defendants.

CABOT SHOPS, INC.,
HOWARD SUPPLY
COMPANY,

/s/ By CHARLES G. LYON,
Attorneys for Defendants. [7]

Acknowledgment of Service Attached. [8]

[Endorsed]: Filed March 29, 1957.

[Title of District Court and Cause.]

STIPULATION

It is stipulated by and between the parties hereto, through their respective counsel;

1. That the complaint in the aforesaid action insofar as it applies to defendants named as John

Doe I, John Doe II, John Doe III, etc. is hereby dismissed without prejudice and without thereby affecting in any way the said action and complaint therein as it applies to the other named defendants;

2. That the complaint in the aforesaid action be amended by interlineation,

(a) by striking from the title the words "John Doe I, John Doe II, John Doe III, etc."

(b) by striking that portion of the complaint, appearing on page 2, lines 2 to 6, both inclusive, and reading "The names and addresses of the other defendants named as John Doe I, John Doe II, John Doe III, etc. are not at presently known to plaintiffs, and plaintiffs request permission to join the same as defendants when the same are ascertained." [9]

3. That the answer of defendants Cabot Shops, Inc. and Howard Supply Co. to the complaint shall be deemed the answer to the complaint as amended above;

4. That the defendants' motion to dismiss the herein action as to John Doe I, John Doe II and John Doe III be removed from the calendar;

5. That the times for plaintiffs and each of them to respond to or take any action with respect to the interrogatories propounded by plaintiffs and served December 27, 1957 shall be extended by seven (7) days addition to the times allowed under Rule 33 of F.R.C.P.

Dated: January 2, 1958.

LYON & LYON,
/s/ By CHARLES G. LYON,
Attorneys for Defendants.

Dated: January 2, 1958.

/s/ PHILIP SUBKOW,
Attorney for Plaintiffs.

It is so ordered this 3rd day of January, 1958.

/s/ BEN HARRISON,
U. S. District Court Judge. [10]

[Endorsed]: Filed and Entered January 3, 1958.

—————

[Title of District Court and Cause.]

NOTICE OF MOTION

To: James Moon, Edmond M. Wagner and Philip Subkow and to Philip Subkow, Their Attorney.

You and each of you will please take notice that on the tenth day of February, 1958, at 10 o'clock a.m., or as soon thereafter as counsel can be heard, defendants will bring on for hearing the annexed Motion to Amend.

Dated at Los Angeles, California, this 2nd day of January, 1958.

LYON & LYON,
/s/ By CHARLES G. LYON,
Attorneys for Defendants. [11]

[Title of District Court and Cause.]

MOTION TO AMEND

Come Now the Defendants, through their attorneys, and moves this honorable court that the Answer on file herein be amended by interlineation by adding to the end of Paragraph No. 7 after the word "use" and before the period, the words—and on sale—. Upon the hearing of the motion, defendant will rely upon the papers and pleadings on file herein and on the annexed Memorandum of Points and Authorities.

Dated at Los Angeles, California this 2nd day of January, 1958.

LYON & LYON,

/s/ By CHARLES G. LYON,

Attorneys for Defendants. [12]

[Title of District Court and Cause.]

MEMORANDUM OF POINTS AND AUTHORITIES

Section 102 of the Patent Act of 1952 states that a person shall be entitled to a patent unless * * *

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the date of the application for patent in the United States, * * *.

Defendant has pleaded that the subject matter of the patent in suit was in public use more than

one year prior to the application for the patent in suit, but has neglected to plead that such invention was "on sale". Defendants wish to offer proof that the patented invention was on sale within the [13] meaning of Section 102 above quoted more than one year prior to the application for patent in suit within the meaning of:

Lensch vs. Metallizing Co. of America, 39 F. S. 838, 128 F. 2d 654; F.E. Myers & Bro. Co. vs. Goulds Pumps, 91 F. S. 475, 92 F. S. 184; Wende vs. Horine, 225 F. 501; C. F. Burke Electric Co. vs. Independent Pneumatic Tool Co., 234 F. 93; Dittgen vs. Racine Paper Goods, 181 F. 394.

Dated at Los Angeles, California this 2nd day of January, 1958.

LYON & LYON,
/s/ By CHARLES G. LYON,
Attorneys for Defendants. [14]

Acknowledgment of Service Attached. [15]

[Endorsed]: Filed January 3, 1958.

PLAINTIFFS' EXHIBIT No. 102

[Title of District Court and Cause.]

DEFENDANT'S ANSWERS TO INTERROGA-
TORIES PROPOUNDED BY PLAINTIFFS
UNDER RULE 33 F.R.C.P.

Comes Now the defendant, Cabot Shops, Inc., and answers the following interrogatories of plaintiffs:

Plaintiffs' Exhibit No. 102—(Continued)
Interrogatory No. I:

Do the following drawings and catalogue pages each correctly show equipment manufactured or sold by defendant Howard Supply Co., defendant Cabot Shops, Inc., or by its predecessor, Franks Manufacturing Corporation, since March 9, 1954?

(a) If as to any of the following catalogue pages the answer is in the affirmative, give the number of units of such equipment so manufactured or sold by each defendant separately and the dates of sale or of manufacture if the same had not been sold, to wit: [16]

1. The Midget Clipper shown at page 1810 of the 1956 Catalogue of defendant Cabot Shops, Inc.

2. The Giant Clipper shown at page 1883 of the 1957 Catalogue of defendant Cabot Shops, Inc.

3. The Super Senior Clipper shown at page 1884 of the 1957 Catalogue of defendant Cabot Shops, Inc.

4. The Senior Clipper shown at page 1885 of the 1957 Catalogue of Cabot Shops, Inc.

Answer: Yes, in the manner following:

(a)

1. Two units using the chassis as shown were manufactured. One was originally built as illustrated but was never sold and was later modified and sold under a different serial number. The other chassis was equipped with a pole mast and sold before manufacture was completed.

Serial 1710 Midget Clipper (w/pole mast) 8-10-54.

Serial 1712 Midget Clipper (w/derrick mast).

Plaintiffs' Exhibit No. 102—(Continued)

Originally built about 9/15/54, but was not sold until 12/21/55 when it was sold after considerable alteration, including replacement of derrick and power plant.

2. Six (6) have been sold

Serial #1709	10/20/54
1719	12/ 6/54
1759	5/ 9/55
1795	8/22/55
1861	2/24/56
1965	2/ 7/57

3. Four (4) have been sold

Serial #1831	12/19/55 [17]
1961	1/16/57
57012-4	6/ 3/57

4. Five have been sold since 3/9/54

Serial #1669	4/15/54
1691	7/16/54
1714	10/21/54
1764	5/24/55
1773	6/15/55

Interrogatory No. II:

Have defendants or either of them since March 9, 1954, manufactured or sold any equipment similar to any of the aforesaid equipment and not shown in any of the aforesaid catalogue pages? If the answer is in the affirmative, designate the model name, model number, to whom the same was sold, where the same was sold and when the same was

Plaintiffs' Exhibit No. 102—(Continued)
sold. If the answer to this Interrogatory II is in the affirmative, state whether the said models are shown in any of the exhibits introduced in connection with the deposition of Mr. Wayland B. Woody taken in Tulsa, Oklahoma in June of 1957, and if so introduced identify the said exhibits by the exhibit number. If not so introduced, state whether defendants or either of them have in their possessions drawings, photographs, descriptive matter or printed matter, catalogues or advertisement showing the same.

Answer: No.

Interrogatory No. III:

In connection with any of the aforesaid items identified in Interrogatory No. I, were any of the aforesaid sold within the Southern District of California since March 9, 1954? If the answer to the aforesaid interrogatory is in the affirmative, give the name of the purchaser and the date of the sale.

Answer: One (1) sold 2/24/56. [18]

Interrogatory No. IV:

State when Franks Manufacturing Corporation first began the design of a portable derrick of a telescopic lattice type similar to any of the equipment referred to in Interrogatory No. I and when was the design completed. State when the construction of the first unit corresponding to any of the units referred to in Interrogatory No. I started and when completed.

Answer: Design began either the latter part of

Plaintiffs' Exhibit No. 102—(Continued)

September or first of October, 1938. Dean E. Foster was the engineer assigned. The general design was established and substantial portion of the working drawings made before he left in early December. Drawings were completed, the parts manufactured, and the unit delivered to the customer 3/15/39.

Actual construction of a drive-in unit began in 1951 and was completed in 1952.

Interrogatory substituted by stipulation for Interrogatories V, VI, and VII.

Give for each model referred to in Interrogatory No. I and the model referred to in Interrogatory No. II sold by defendants or either of them the following information:

1. Did the Howard Supply Co. or the Franks Manufacturing Corporation, predecessor in business of defendant Cabot Shops, Inc., prior to the manufacture or sale by the Franks Manufacturing Corporation of any of the equipment referred to in Interrogatory I or Interrogatory II, manufacture or sell portable telescopic derricks such as or similar to those advertised by said Franks Manufacturing Corporation at pages 1349-1352, both inclusive, of Volume 1 of the Composite Catalog of Oil Field and Pipeline Equipment (1948-16th Edition)?

2. If the answer to the foregoing Interrogatory I is in the affirmative, give with respect to each of such equipment so sold: [19]

Plaintiffs' Exhibit No. 102—(Continued)

(A) The model number thereof;

(B) The weight on the front wheels of the model moving under its own power on the road, the number of such front wheels and the state or states to which the same were shipped, and the dates of each such shipment, unless the same has been previously identified, and

(C) The weight on the rear wheels of the model moving under its own power on the road, the number of such rear wheels and the state or states to which the same were shipped, and the dates of each such shipment, unless the same has been previously identified, and

(D) If the facts referred to in 2 above, A to C all inclusive, are unknown to defendants, give the total weight on the front and rear wheels of the model moving under its own power on the road, the number of such front and rear wheels and the state or states to which the same were shipped, and the dates of each such shipment, and

(E) The front overhang of the derrick in front of the bumper, if a bumper was used, or, if no bumper was used, in front of (a) the front end of the vehicle, (b) the forward most point of the front tires, and (c) the state to which each of so identified units were so shipped and the dates of such shipment.

Answer: 1. Franks Manufacturing Corporation together with its successor has continuously produced and sold telescoping mast of the same basic type from 1939 to the present. The production of

Plaintiffs' Exhibit No. 102—(Continued)

drive-in units has had no material effect on design or production.

2. The questions of parts A, B, and C can only be answered as follows: The variation of components possible under a given model designation could easily cause a 100% variation in total weight and its distribution. Few if any exact duplicate units were ever produced. A summation of the information is this: [20]

(a) Units were produced with two or three axles.

(b) The weight on the front axle might vary from 7,000 lbs. to 19,000 or 20,000 lbs.

(c) The weight on the rear wheels might vary from 22,000 lbs. to 50,000 lbs.

(d) These units were sold and the same type are still being sold in most of the oil producing states and foreign countries.

(e) The front overhang of the telescopic masts referred to varied from (0') zero ft. to approximately twenty-eight ft.

Interrogatory No. VIII:

Did any of the customers of Franks Manufacturing Corporation, prior to the manufacture of the Clipper units referred to in Interrogatory No. I, request that they be supplied with portable lattice derricks of the telescopic type mounted on motor vehicles which would comply with the laws of the various states regarding the movement of such vehicles over public roads? If the answer is in

Plaintiffs' Exhibit No. 102—(Continued)
the affirmative, state the names of the customers and the dates of the requests.

Answer: I am certain that verbal suggestions were made from time to time. As a matter of fact, the only excuse for designing and producing the telescoping derrick mast in the first place was to make possible use of a doubles mast having tolerable road lengths both from the practical usage standpoint and highway permissibility.

Interrogatory No. IX:

Has defendant Cabot Shops, Inc. in its possession or control any drawings, reports, data, photographs made either by Mr. Aular or by Mr. Wayland B. Woody, or correspondence to either of them or sent by either of them while said Mr. Aular [21] or Mr. Woody were in California subsequent to June of 1946-48 and during the period of and in connection with the design of portable telescopic lattice derricks mounted on motor vehicles for defendant's predecessor, Franks Manufacturing Corporation? If the answer is in the affirmative, were any of the same introduced in connection with the deposition of Mr. Woody, taken in Tulsa in June of 1957? If so introduced identify the same.

Answer: Such files and data as existed have apparently become lost or destroyed some years ago to reduce storage.

Interrogatory No. X:

Have defendants or either of them in their pos-

Plaintiffs' Exhibit No. 102—(Continued)

session or control correspondence between Franks Manufacturing Corporation and Mr. Richard White, the brother of Mr. Carl White, then President of Franks Manufacturing Corporation, while said Mr. Richard White was in California, which correspondence relates to the design, manufacture or sale of portable lattice telescopic derricks which would comply with the laws of the State of California relating to movement of motor vehicles over the public roads of California?

Answer: We are unable to find these files. Present management maintains a schedule of retention time of various classes of files.

Interrogatory No. XI:

Do defendants or either of them have in their possession or under their control correspondence between Franks Manufacturing Corporation and the State of California, during the period of 1949-52, relating to the legality or illegality of portable telescopic lattice derricks mounted on vehicles manufactured by said Corporation or to the proposed design thereof by said Corporation.

Answer: No. [22]

Interrogatory No. XII:

Have defendants or either of them in their possession or under their control any correspondence to or from Franks Manufacturing Corporation relating to Exhibit 19, introduced in connection with the Woody deposition taken in June of 1957?

Answer: No.

Plaintiffs' Exhibit No. 102—(Continued)
Interrogatory No. XIII:

Has any officer or employee of Franks Manufacturing Corporation seen a 321 or a 421 Drive In unit manufactured by Waldrip Engineering Co.? If the answer is in the affirmative, give the name of such officer or employee and the date on which the same was first seen.

Answer: We have no record of whom in the employ of Franks Manufacturing Corporation may have seen a Waldrip 321 or 421 Drive-In unit, nor do we have a record of any dates such employees may have seen such equipment.

Interrogatory No. XIV:

Where and when and from whom did Franks Manufacturing Corporation obtain Exhibit 8, introduced in connection with the deposition of Cleon James Moon, also known as James Moon, given on April 20, 1957?

Answer: We do not know. Probably from a customer. Sales departments continuously obtain copies of competitive quotations and data.

Interrogatory No. XV:

Prior to the design of the first Clipper unit by Franks Manufacturing Corporation did any officer or employee of Franks Manufacturing Corporation see any drawings, photographs, catalogues of the Drive In unit manufactured by Waldrip Engineering Co.? If the answer is in the affirmative, give the date when any thereof was first seen and iden-

Plaintiffs' Exhibit No. 102—(Continued)

tify the same if the same forms any exhibit introduced in connection with the aforesaid depositions of Mr. Woody or Mr. Moon. [23]

Answer: There is no specific data of record as to any individual or time. It may be presumed that any employee who may have been on the mailing list to receive the Waldrip house organ "The Wildcatter," probably gave at least cursory inspection of any illustrations included. There is no record or recollection that any revelations included in this publication made any profound impression or influence on anyone in the Frank's organization.

Interrogatory No. XVI:

Prior to the design shown in Exhibit 3, introduced in connection with the aforesaid deposition of Wayland B. Woody, did Franks Manufacturing Corporation do any design work or make any drawing of any equipment in which a lattice telescopic derrick is mounted on a motor vehicle so that the crown of the derrick extends to the rear of the vehicle as it is driven and in which means are provided to hinge the derrick to the vehicle and to erect the derrick by rotation of the derrick about said hinge?

Answer: It is a matter of recollection of Mr. W. B. Woody of the defendant corporation that Mr. Aular made several proposal layouts and that these were drive-in units, although the drive-in feature was about the only similarity to equipment produced in recent years. Since Aular's drawings

Plaintiffs' Exhibit No. 102—(Continued)

were only proposals, they were not brought back to the main plant at Tulsa and incorporated in the permanent drawing files.

Interrogatory No. XVII:

If the answer to the foregoing Interrogatory No. XVI is in the affirmative, state whether the defendants or either of them have in their possession or under their control any drawings, photographs or descriptive matter showing the same or any reports or correspondence relating thereto and whether any thereof have been introduced in connection with the aforesaid deposition of Mr. Wayland B. Woody and, if so, identify the same by exhibit number. [24]

Answer: There is none.

Interrogatory No. XVIII:

Did the Franks Manufacturing Corporation sell to the Richfield Oil Company in California portable telescopic derrick mounted on a motor vehicle in which the engine was placed behind the cab? If the answer to this interrogatory is in the affirmative, give the model number, date of sale and place of delivery of such unit. If the said unit is shown in any of the catalogue pages referred to in Interrogatory No. I, identify the model to which said unit corresponds. If the said unit is not shown in any of the aforesaid catalogue pages, do defendants or either of them have in their possession or under their control drawings, photographs or other representations of said equipment?

Plaintiffs' Exhibit No. 102—(Continued)

Answer: If the question is intended to refer to a drive-in type unit, the answer is no. Franks Manufacturing Corporation never has sold Richfield Oil Corporation such unit.

Interrogatory No. XIX:

Did Cabot Shops, Inc. or its predecessor, Franks Manufacturing Corporation, sell any equipment to the Pacific Western Oil Company, which unit had a telescopic lattice type derrick mounted on a motor vehicle with the crown of the derrick to the rear of the motor vehicle? If the answer is in the affirmative, state the model and date of sale thereof and whether the same is shown in any of the catalogue pages referred to in Interrogatory No. I and, if so included, identify the model.

Answer: Yes. Such unit was a "Giant Clipper" such as is shown on page 1883 of plaintiffs Ex. #1. It was delivered to Pacific Western March 19, 1953, according to records.

Interrogatory No. XX:

State in what respect defendant claims that the Patent No. 2,671,537 was not either duly or legally issued, as alleged in Paragraph 2 of Defendants' Answer. [25]

Answer: Patent No. 2,671,537, the patent here in suit was not duly or legally issued because:

1. More than one year prior to June 28, 1948, the date on which application for said patent was filed, the alleged invention which is the subject matter of the patent was described in a printed

Plaintiffs' Exhibit No. 102—(Continued)
publication in this country and was offered for sale in this country.

2. The alleged invention was known and used by others in this country before the alleged invention by the plaintiff Moon.

3. The plaintiff Moon abandoned his alleged invention.

4. The subject matter of the alleged invention differed from the prior art only in respect to matters which would have been obvious at the time the alleged invention was made to a person having ordinary skill in the art.

Interrogatory No. XXI:

State the date upon which it is alleged by defendants in Paragraph 5 of their Answer that the invention, identified by defendant as the "alleged invention" in said Paragraph 5, was made and state if defendant will rely on evidences other than those referred to in Paragraphs 6 and 7 of the Answer to show the State of the art and, if so, state of what such evidences consist.

Answer: Defendant is presently without independent knowledge as to the date of the making of the alleged invention by the plaintiff Moon. Defendant will not rely upon evidence as to the prior art other than patents and publications previously called to the attention of plaintiffs except for Waldrip advertisements appearing in journals and publications in 1946 and 1947.

Plaintiffs' Exhibit No. 102—(Continued)

Interrogatory No. XXII.

State what part or parts of the invention or improvement referred to in Paragraph 5 of the Answer does not embody substantial variations of changes from that which belong to the State of the [26] art as it existed at the time of the alleged inventions thereof, as alleged in Paragraph 5 of Defendants' Answer.

Answer: There is no part of the alleged invention which embodied substantial variation or change from the state of the art as it existed at the time of the alleged invention.

Interrogatory No. XXIII:

Give the name, date, title and pages of the publications referred to in Paragraph 6 of the Defendants' Answer.

Answer: Complete information as to publications has been either given to plaintiff by defendant's counsel or given by plaintiff in its answers to defendant's interrogatories, except a Waldrip advertisement appearing in the May, 1947, issue of "The Petroleum Engineer."

Interrogatory No. XXIV:

Give the numbers, dates and country issuing each of the patents referred to in Paragraph 6 of said Answer, which defendants will urge at the trial best disclose the material elements and combinations of elements as alleged in said Paragraph 6.

Answer: Defendant will rely upon the following

Plaintiffs' Exhibit No. 102—(Continued)
patents to disclose the elements of the alleged invention:

(Ex. 16 Patents.) (See Attached List.)

Interrogatory No. XXV:

Give the date and place of the public use referred to in Paragraph 7 of the Answer and the name of those making such use and the names of all witnesses known to defendants having knowledge of such use.

Answer: Defendant withdraws the defense of prior public use.

Interrogatory No. XXVI:

State when, where and by whom "Moon's invention was 'on sale' ", as is alleged by defendants in their Motion to Amend their Answer set to be heard on February 10th.

Answer: Moon's alleged invention was on sale at least as early [27] as April, 1947, at Waldrip Engineering Company, 11810 Center Street, Hollydale, California, by Waldrip Engineering Company.

Interrogatory No. XXVII:

Have defendants or either of them any documents, drawings or correspondence relating to the placing on sale, as alleged in said Motion, and, if so, identify the same.

Answer: Defendant has advertisements of Waldrip Engineering Company in "The Petroleum Engineer" of April, 1947, May, 1947, and June, 1947, and product announcements in the "Oil

Plaintiffs' Exhibit No. 102—(Continued)

Weekly" of May 5, 1947, and in the "Oil and Gas Journal" of May 10, 1947.

Interrogatory No. XXVIII:

Has the Patent referred to on page 1886 of the 1957 Catalogue of defendant Cabot Shops, Inc. been issued? If the answer is in the affirmative, identify the same by number.

Answer: No.

CABOT SHOPS, INC.,
/s/ By FRED C. FERNALD,
Vice-President.

Duly Verified.

EXHIBIT 16

Pat. No.

966,346	Aug. 2, 1910	Morton
1,096,022	May 12, 1914	Downie
1,395,895	Nov. 1, 1927	Bellony
1,594,909	Aug. 3, 1926	Steele
1,894,432	Jan. 17, 1933	Watson
1,897,383	Feb. 14, 1933	Burgoyne
2,151,057	Mar. 21, 1939	Suth
2,204,713	June 18, 1940	White
2,215,920	Sept. 24, 1940	Franks
2,276,224	Mar. 10, 1942	Cardwell
2,343,517	Mar. 7, 1944	Alexander
2,488,180	Nov. 15, 1949	Evans

Acknowledgment of Service Attached. [30]

[Endorsed]: Filed February 21, 1958.

[Title of District Court and Cause.]

PLAINTIFFS' PRETRIAL STATEMENT OF FACTS

1. Plaintiffs are jointly the owners of the patent in suit by assignment from Western Oil Tool & Engineering Co., Inc., the original assignees of the patent by assignment from James Moon, the applicant and patentee, also known as Cleon James Moon. Plaintiffs by said assignment are also the assignees of all the rights of Western Oil Tool & Engineering Co., Inc. to collect for past infringement of said Letters Patent.

(Proof by admission by Answer and Stipulation, and by evidence—testimony and documents.)

2. (a) Prior to 1948, portable derricks employed for servicing and drilling oil wells of the telescopic lattice or trussed four-legged type, were of the back-in type.

(b) These are so called because a derrick was transported and mounted on the vehicle so that it was hinged at the back end of the vehicle. The driver and engine were [42] positioned at the front end of the vehicle. The vehicle had to be backed into the location in order to erect the derrick.

(Proof by evidence by testimony and documents.)

3. (a) Pole masts were also employed.

(b) These pole masts were so called because in their early design they consisted of a single tube which in some cases was telescopic and which was mounted upon a vehicle.

(c) These pole masts were mounted on vehicles either to pivot on the rear of the vehicle in a "back-in" type or in early types to pivot at the front of the vehicle in a "drive-in" type.

(Proof by evidence by testimony and documents.)

4. (a) The pole masts were introduced prior to 1919 to replace permanently installed derrick and hoisting equipment on cable tool.

(b) A rather crude mobile servicing machine was constructed by placing a hoist drum on the front end of the tractor. The drum was driven by a flat belt from a power take-off pulley on the side of the tractor.

(c) The hazards in using this machine were considerable and usually it was necessary because of the fire hazard to place the machine 100 feet or so away from the well and pull through a floor block.

(Proof by evidence—testimony and documents.)

5. (a) Later a pole mast was hinged on the front end of the tractor above the drum and forward of the drum.

(b) This permitted the tractor with the hoist and pole mast to be driven directly to the well site instead of backing in.

(c) The driver still sat at the rear of the tractor with the hoist on the front end and the engine between him and the hoist and the pole hinge. [43]

(d) This design positioned the engine close to the well head and created a fire hazard.

(Proof by evidence—by testimony and documents.)

6. (a) The above design, as stated in 4 and 5 above, had a certain utility for the shallow wells then characteristic in the industry.

(b) When deeper wells were drilled, these pole mast units lost part of their usefulness since they could not be used in the deeper wells where the loads were high.

(Proof by evidence—by testimony.)

7. (a) The first step prior to the development of the portable telescoping lattice type mast in adapting the portable equipment to deeper wells, was to increase the size of the pole mast and of the hoisting equipment.

(b) When this was done, the large pole mast was hinged on the rear of the truck.

(Proof by evidence—by testimony and documents.)

8. Double pole masts of the telescoping type also were used.

(Proof by evidence—by testimony and documents.)

9. (a) These vehicles were built along the lines of conventional trucks with the hoist drum at the rear being driven by the engine which was at the front of the vehicle.

(b) The cab was located between the hoist drum and this engine.

(c) The pole mast was hinged at the rear of the vehicle.

(Proof by evidence—by testimony and documents.)

10. Single pole masts as used prior to 1947 were limited in height and were of limited capacity. They were not suitable for well servicing operations where the loads ran high, such as in jarring or in unseating packers or in taking a pull [44] equal to the parting strength of the tubing or drill pipe.

(Proof by evidence—by testimony and documents.)

11. The setup time where a large number of guys had to be secured to dead men located in the ground made them uneconomic in terms of time.

(Proof by evidence—by testimony and documents.)

12. The pole mast designs known prior to Moon's invention were of no help in the design of portable truss-type masts.

(Proof by evidence—by testimony and documents.)

13. (a) The portable telescopic truss-type derricks of the back-in kind were substituted for permanent derricks previously employed in many instances.

(b) Because of their versatility they also replaced pole type masts in many services for which pole type masts had been used previously.

(Proof by evidence—by testimony and documents.)

14. (a) Defendant's predecessor, Franks Manufacturing Co., manufactured and sold a telescopic truss type back-in truck mounted derrick in 1939.

(b) Previously it had built back-in derricks which were not telescopic and were designed for light service in which they used hydraulic jacks to erect the derrick.

(Proof—(a) by admission in defendants' Answers to plaintiffs' Interrogatories; (b) by evidence—by testimony and documents.)

15. However, when Franks designed the telescopic derricks in 1939 for heavy duty on oil wells, they abandoned the hydraulic jacks because they believed them to be unsuitable for this service and too hazardous and developed a screw-raising mechanism.

(Proof by admission in defendant's catalogues [45] and by testimony and documents.)

16. One of the difficulties with the back-in units was that they did not comply with highway laws of the various states in that they could not be built so as to comply with:

(a) The limitations of loading on the front or rear wheels; or with

(b) The overhang requirements, or overall height requirements.

(Proof by evidence—by testimony and documents.)

17. Additionally, the position of the derrick was such that the top of the derrick had to protrude in front of the vehicle for more than was allowable under the highway laws of many states.

(Proof by evidence—by testimony and documents.)

18. The derrick thus also limited the upward vision in front of the driver.

(Proof by evidence—by testimony and documents.)

19. The back-in unit had to be spotted by backing in. Since for a servicing unit the spotting must be very accurate in order to align the crown with the axis of the well, this required the help of spotters who were positioned on the ground and the spotting was a ticklish job, especially when the quarters were close. It was also very time-consuming.

(Proof by evidence—by testimony and documents.)

20. (a) Franks had many competitors. They produced portable derricks in which the derrick was hinged on the back of the truck.

(b) However, all of these units, both Franks and their competitors, had the same problem with respect to compliance with State laws and customers were in trouble with the Highway authorities.

(c) They could move the derricks only by getting special permits which restricted the motion to good weather in [46] the daytime, during the week. Movement during bad weather on holidays or week ends or at night was prohibited.

(d) If the weights were too excessive and beyond the permit limit, the derrick had to be dismounted and moved separately.

(Proof by evidence—by testimony and documents.)

21. (a) Users of back-in derricks demanded that they be supplied with units that they could move over the road at any time without special permit without interference by the police.

(b) Until the drive-in unit, Franks and other manufacturers of back-in units were unable to supply portable telescopic lattice type masts which would meet these requirements.

(c) Customers were forced to accept back-in units which could not qualify as legal units in the several states in which the same were employed or to try other solutions of the problem of mobility (see Items 22 and 23).

(d) This state of affairs continued from 1939 to the introduction of the drive-in unit by Waldrip Engineering Co. in 1948.

(Proof as to (a) by admission in defendant's, Cabot Shops, Inc., Answers to plaintiffs' Interrogatories. Proof as to (a) through (d), by evidence by testimony and documents.)

22. The inability to carry large derricks in integrated units and also to comply with State Highway laws led to other solutions where the derrick was transported separately from the hoist and its driving engine.

(Proof by evidence—testimony and documents.)

23. This included both fixed height and telescopic derricks.

(Proof by evidence—testimony and documents.)

24. (a) Defendant's predecessor, the Franks [47] Manufacturing Corp., for long prior to the

construction by Franks of its first Clipper unit had knowledge of the illegality of the back-in units.

(b) They tried unsuccessfully to solve the problem of producing a legal integrated portable telescopic derrick by means other than the design of the units accused of in this litigation.

(c) These designs were unsuccessful and were abandoned in favor of the drive-in design accused in this action as an infringement.

(Proof of (a), by admission in defendant's, Cabot Shops, Inc., Answers to plaintiffs' Interrogatories, and as to (a), (b) and (c), by testimony and documents.)

25. (a) Not until Franks introduced their Clipper units of the drive-in type in 1952 did they have a unit for sale which could comply with the Highway laws of California and other states in which its customers desired to use such portable units.

(b) They advertised the availability of such units to the trade as a great advance in this art.

(Proof by admission by defendant Cabot Shops, Inc. and its predecessors in their advertisements, and by testimony and other documents.)

26. (a) In June of 1944, Moon conceived the idea of positioning a telescopic derrick on a truck so that it could be driven with its feet to the front into the location.

(b) At that time he had not worked out the means by which such a construction could be achieved in a practical way nor had he determined whether such a unit could be made to comply with

the Highway laws of California or other states of the United States.

(Proof by evidence—testimony and documents.)

27. (a) Subsequently and some time prior to November 5, 1945, Moon conceived the idea of mounting the derrick so that it [48] would be hinged on a hinge positioned on the derrick near its bottom and also positioned on a hinge support mounted on the chassis, with the hinge positioned above the driver's position. The engine was to be placed to the rear of the truck and the hoist drum positioned at the rear of the cab which was to be at the front of the truck. The derrick was to be erected by a screw-lifting mechanism which he had previously developed for use in a back-in unit.

(Proof by evidence—testimony and documents.)

28. (a) The Waldrip Engineering Co., was then the licensee of the Western Oil, Tool & Engineering Co., to whom Moon had assigned his inventions in this field, and decided to construct such a unit.

(b) Moon joined the company as a vice-president in charge of the project.

(Proof by evidence by testimony.)

29. From further studies made by Moon concluded that in order to provide sufficient room for the screw-raising mechanism, the hoist drum had to be moved backwards towards the end of the truck and the engine had to be moved backwards towards the end of the truck. The weights thus imposed upon the rear wheels would be in excess of that permitted by the Vehicular Code of California in force in 1946.

(Proof by evidence by testimony.)

30. (a) During the month of November, 1946, Moon conceived the idea of employing, instead of the screw-raising mechanism, hydraulic jacks so mounted as to transmit the raising load to the chassis between the front and rear wheels.

(b) He made a drawing dated December 12, 1946.

(c) He concluded that this design provided enough room on the truck to permit him to move the hoist drum and the [49] engine forward towards the front of the vehicle.

(Proof by evidence—testimony and documents.)

31 (a) Moon did not yet know, however, that such a design would produce a legal unit with respect to the loading on the front wheels as well as on the rear wheels.

(b) He was hopeful that this would be accomplished because of the shifting of the weight of the engine from the front to the rear wheels and his ability to adjust the location of the units relative to the front and rear wheels to provide the desired loading on both the front and the rear wheels which would comply with the Highway laws of the various states in which such vehicles could be used for servicing oil wells.

(Proof by evidence by testimony.)

32. Having achieved what appeared to Mr. Moon to be a successful solution of the problem of producing a legal unit, active design of the unit began prior to January, 1947.

(Proof by evidence—testimony and documents.)

33. The main chassis assembly design was completed on January 14, 1947 and continually thereafter up to the final construction of the first unit, a continuous effort in the design and construction of the unit occurred.

(Proof by evidence by testimony and documents.)

34. (a) Since it appeared to Waldrip Engineering Co. that this project would be quite a costly one to them, they desired to know whether a successful business could be established in this type of unit.

(b) Early in 1947, they published certain advertisements to obtain information as to the interest of the industry.

(c) For such purpose an artist was instructed to make a drawing of the side elevation showing the external appearance corresponding to the drawing made by Moon on December 12, 1946 [50] but omitting all structural and mechanical features relating to design or operation of the unit.

(d) At that time the derrick and many of the other components of the unit had not yet been designed.

(Proof by evidence by testimony and documents.)

35. As Waldrip Engineering Co. obtained by the end of the year 1947, two orders—one from the General Petroleum, Unit 321-1 and one from the Standard Oil Company of California, Unit 321-2, and a third order in January, 1948 for Unit 421-1.

(Proof by evidence by testimony.)

36. Active design of the units began prior to January 1947 and continued actively up to and during the period of construction.

(Proof by evidence by testimony and documents.)

37. (a) Some time during the period of design and prior to the start of construction, doubt arose in Mr. Moon's mind as to whether the design as conceived and shown in the December 12, 1946 drawing with the hinge positioned on the derrick and positioned on the chassis would permit of a legal design, based on the laws then in force in California.

(b) It was decided to so mount the derricks so that it could be slid forward from its road position to its erection position.

(Proof by evidence by testimony and documents.)

38. (a) Engineering releases of drawings were made to the shop for construction beginning late November, 1947.

(b) As sections of the unit were released by the engineering department to the shop, construction was started. The shop started construction and actively pursued continuously from November 1947 until the first unit was assembled ready for delivery.

(c) The first two units built were of the [51] character described in Item 37 (b).

(Proof by evidence by testimony and documents.)

39. While the first unit was completed for test purposes, late in April of 1948, certain modifications were made in the following six weeks, con-

timing until after the filing of the application in June 28, 1948.

(Proof by evidence by testimony and documents.)

40. It was decided by Waldrup with the consent of General Petroleum Corp., the customer, to test the unit at Wilmington, California before delivery to General Petroleum.

(Proof by evidence—by testimony and documents.)

41. During March and April, studies were made of the distribution weight on the rear and front wheels of the sliding type derrick with the derrick slid to the erecting position, but with the derrick crown resting on the chassis. It was determined by these studies that the unit driven in this position would comply with the laws of California regarding weight distribution and would not excessively load the tires.

(Proof by evidence by testimony and documents.)

42. It was concluded by Mr. Moon that the original design shown in the December 12, 1946 drawing would result in a unit legal in California with regard to weight imposed on the wheels.

(Proof by evidence by testimony and documents.)

43. It was thus established by experiment that the original design would be legal. The extension of the legs from a distance in front of vehicle, legal under the laws of California, to the erection position required telescoping the legs so that they would extend the legal distance in front when the

vehicle was transported and could be extended to any desired length to rest upon supports on the ground when erected.

(Proof by evidence by testimony and documents.)

44. Experience with these two sliding type derricks indicated that the fixed type derrick, with the hinge positioned on the derrick and positioned on the chassis was superior.

(Proof by evidence by testimony.)

45. It was found that great caution had to be exercised when sliding the derrick forward in order to prevent the derrick being displaced dangerously on the truck by jumping the tracks provided for sliding the derrick.

(Proof by evidence by testimony.)

46. (a) Since the first two units that had been ordered were practically completed, no modification was made of these units.

(b) However, the third unit, which was delivered to Standard Oil Co. of California after June, 1948 was modified prior to delivery so that the hinge was positioned on the derrick and positioned on the chassis.

(Proof by evidence by testimony.)

47. (a) Waldrip Engineering Co. built three other units similar to the third unit built.

(b) They were all constructed and delivered subsequent to the filing of the patent application.

(Proof by evidence by testimony and documents.)

48. (a) September of 1946, Franks Transporta-

tion Co. learned of Moon's concept of the drive-in unit.

(b) However, admitting that the design appeared ingenious, Mr. Woody, then Vice President in charge of Engineering of Franks, doubted its practicality and believed that the weights would be excessive.

(Proof by evidence by testimony and documents.)

49. (a) By 1949, the problem of the illegality of the back-in units became so acute that they were forced by [53] competition from Waldrip to attempt to design a legal unit.

(b) Franks first tried to modify the back-in unit previously manufactured by them in order to make it comply with the Highway laws but failed to solve the problem by this method.

(c) They sent an engineer to California to design a legal unit.

(d) His designs constituted a modification of the back-in unit which was found to be entirely unsuitable by Franks.

(Proof by evidence by testimony and documents.)

50. (a) During and prior to the completion of the design of the first Clipper unit by Franks they had learned of the Moon design of the drive-in unit manufactured by Waldrip.

(b) They had obtained a copy of a brochure prepared by Moon for Waldrip.

(c) This brochure was a confidential bulletin which was shown to the personnel of Waldrip in confidence and to be kept secret and disclosed to

no one unless the said disclosure be received as a confidential disclosure to be kept secret and confidential by the recipient.

(d) The units manufactured by Waldrip were then in the field and in use.

(e) Waldrip had advertised these units.

(Proof as to (a) and (b), by admission in the Answers of defendant Cabot Shops, Inc. to plaintiffs' Interrogatories, and as to (a) through (e), by evidence by testimony and documents.)

51. (a) With this information before them, the defendant started a design in 1949 and completed the first Clipper unit in 1952.

(b) This design followed the design of the [54] brochure and of the models manufactured by Waldrip at that time.

(Proof by evidence by testimony and documents.)

52. (a) Franks subsequently designed various models employing two and four front wheels and moving the hinge point back and forth with respect to the front axle.

(b) All of these structures are substantially the same in construction and function.

(c) In all of these forms the same design characteristics appear.

(d) They are severally identified and advertised in the catalogues of defendant Cabot Shops, Inc., as follows:

(i) Midget Clipper, shown at page 1810 of the 1956 catalogue;

(ii) Giant Clipper, shown at page 1883 of the 1957 catalogue;

(iii) Super Senior Clipper, shown at page 1884 of the 1957 catalogue;

(iv) Senior Clipper, shown at page 1885 of the 1957 catalogue.

(Proof by admission by defendant Cabot Shops, Inc. in their Answers to plaintiffs' Interrogatories, and in the deposition of Mr. Woody when called by plaintiffs, and by evidence by testimony and documents.)

53. (a) At least 16 of such units were sold since March, 1954 and prior to filing of this action, and at least one thereof was sold in the Southern District of California.

(b) That at all such times Franks and subsequently defendant, Cabot Shops, Inc., maintained an established place of business in Los Angeles County.

(c) That on or about the 5th day of [55] April, 1955, said Franks Manufacturing Corp. did merge with Cabot Shops, Inc., the herein defendant, and acquired all liabilities of said Franks Manufacturing Corp.

(d) That defendant, Cabot Shops, Inc., does not claim any ownership or any part of the right, title and interest in or to said Letters Patent 2671537, or in or to the invention and discovery secured thereby or any shop right, or any other right or license thereunder or thereto.

54. (a) Defendant, Howard Shops, Inc., is a California corporation, having its principal place of

business in Los Angeles County, has been and is now and prior to the filing of this Complaint was the sales representative of Cabot Shops, Inc., a defendant herein, and joined with defendant, Cabot Shops, Inc., in the sales made in the said Southern district of California.

(b) Cabot Shops, Inc. has agreed to indemnify Howard Shops, Inc. against any judgment in this action, and is paying all costs in connection with the defense of this action and is directing and in control of the defense of this action.

(Proof by evidence by testimony and documents.)

55. These "Clipper units" all have the following characteristics also possessed by the structure described in the Moon Patent:

A. The derrick is a four-legged truss type lattice telescopic derrick which when erected to the vertical position, at the front of the vehicle, has its axis inclined to the perpendicular.

B. The derrick when erected, is capable of carrying the loads imposed on the derrick and to transmit the loads to the ground through structure elements which include the derrick legs.

C. The derrick load transmitting structure is such that the base of the derrick is larger than the [56] cab dimension measured transversely of the cab.

D. This structure includes also framing for the hinge point so as to carry load on the derrick legs to the ground through a framework which transmits the load to the chassis and from the chassis through jacks to the ground.

E. The hinge point is positioned on the derrick near its end and on the chassis above the driver's position so that as the derrick moves towards the vertical position it will be erected at the front of the vehicle.

F. When erected, the structure for carrying the loads to the ground straddles the truck and cab.

G. The hinge supporting structure provides a protective framework for the driver and supplies a porthole which gives him clear vision of the road and protects the driver from the overhead load.

H. The position of the hinge and the location of the derrick erecting mechanism is such that the mechanism transmits the erecting load to the chassis between the front axle and the rear axle.

I. The load of the derrick as it is erected and moves towards its perpendicular position is transmitted to the chassis to the ground and produces a load distribution resulting in a chassis frame deflection which is well within the allowable strain in the structure. [57]

J. By positioning the engine at the rear of the vehicle and hinging the derrick at the front of the vehicle, the center of mass of the structure is moved towards the rear side of the center line of the vehicle, thus giving to the drive-in unit stability during raising and in use.

K. Whether in the construction the hinge point is forward or backward of a given point at the front of the truck but sufficiently forward to permit the erection of the derrick at the front of the vehi-

cle, the structures all produce substantially the same results in substantially the same way.

L. The arrangement with the motor at the rear of the truck and with the crown of the derrick to the rear of the truck and with the cab at the front of the truck has also the following advantages:

(a) By placing the driver next to the base of the derrick, he can spot the derrick by driving directly to the desired location;

(b) The arrangement of the parts makes it possible to limit the front leg extension to any desired amount in front of the vehicle by providing cooperating structure to carry the load to the ground;

(c) Room is provided on the truck for the hoist and also room for positioning the erecting jack and room for its rotation to erect the derrick;

(d) The arrangement provides room for positioning the major weight on the rear wheels and provides room for shifting the motor and hoist so as to place the right proportion of the [58] weight on the rear and front wheels.

(Proof of the above Item 55 and all its parts
—by evidence by testimony and documents.)

56. In contrast, the back-in unit compared with comparable drive-in units designed for like service on wells:

(a) When designed for service on petroleum wells, could not be made legal with respect to the load distribution.

(b) Could not be made legal in many states, including California, with respect to the front overhang.

(c) Had difficulty meeting overall height requirements of the Highway laws.

(d) Had serious frame deflection on erection of the derrick.

(e) Had no overhead framing to provide a safety frame for the driver.

(f) Was more difficult to spot and required more labor for such erection.

(g) Back-in units manufactured prior to 1948 were structures which were less stable during erection and in use than comparable drive-in units manufactured since Moon's invention was first put on the market.

(Proof by evidence by testimony and documents.)

57. The Patent 2671537 describes an invention not known or used by others in this country or patented or described in any printed publication cited by the defendants in this action and having a date prior to the invention thereof by Mr. Moon, or having any other date. Nor is the invention patented described in a printed publication in this or a foreign country, or in public use or on sale in this country for more than one year prior to the date of the publication for the patent in suit, nor has the [59] invention been abandoned by Moon. Nor is the invention described in a patent granted on an application for patent by anyone else filed in the United States before the invention by Mr. Moon. Mr. Moon himself invented the invention. And also the differences between the subject matter sought to be patented and the prior art is such that the subject mat-

ter as a whole would not have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

(Proof by evidence by testimony.)

58. The following have been licensed under the patent in suit:

Hopper Machine Works, Inc.

Ideco Division, Dresser Equipment Co.

Wagner-Morehouse, Inc.

(Proof by evidence by testimony.)

In the above Pre-Trial Statement the term "testimony" includes oral testimony given at the trial and testimony by depositions. "Documents" includes both verbal and graphical documents, for example, drawings, photographs and prints.

Dated: February 26, 1958.

/s/ PHILIP SUBKOW,

In Propria Persona,

Attorney for Plaintiffs. [60]

Acknowledgment of Service Attached. [61]

[Endorsed]: Filed February 26, 1958.

[Title of District Court and Cause.]

DEFENDANTS' PRETRIAL OPENING STATEMENT

In accordance with Paragraph 7 of the Pretrial Order of April 2, 1957, defendant, Cabot Shops,

Inc., submits herewith its Pretrial Opening Statement.

1. The patent in suit relates to portable masts or derricks which have been used in the oil industry since at least as early as 1914. These portable masts or derricks have been mounted on various types of vehicles and for the most part have been rear-erecting. That is the base of the derrick is carried at the rear of the vehicle adjacent which the derrick is erected. Nevertheless, there were such masts or derricks designed for [62] front-erection. (U. S. Patents, Exhibit 16; Franks Mfg. Co. catalogs; Moon deposition, p. 10.)

2. With the passage of time, drilling and servicing of oil wells has been done at greater and greater depths. As a result, derrick structures of greater strength and accordingly greater weight were required. (Evidence; expert testimony, Affidavit of James Moon, p. 2, 3—9/12/52, file history of patent in suit.)

3. Conventional trucks were no longer suitable to carry the heavier derrick units. Not only were their structural characteristics insufficient, but the weight distribution was also unsuitable for engineering and legal reasons, the legal reasons being the necessity for compliance with the various highway codes of the various states. With the abandonment of conventional trucks, it became necessary to custom build the entire truck. In custom building, it was feasible and desirable from a weight distribution standpoint to reverse the positions of the various

components on the chassis in a manner such as to satisfy both the engineering and legal requirements for such structures. (Evidence; expert testimony, Affidavit of James Moon, p. 7, 8, 9—9/12/52 file history of patent in suit.)

4. Portable truck-mounted rear-erecting telescoping derricks were quite common at least two years prior to the application of Moon for the patent here in suit. So too, were the elevating mechanisms for erecting the derricks and extending and retracting the telescopic sections (Carl White Patent No. 2,204,713).

5. Prior to June, 1947, defendants' predecessor, Franks Manufacturing Corp., had made and sold portable servicing rigs including the following elements:

- (a) telescoping derricks
- (b) chassis having front and rear wheels [63]
- (c) hydraulic jacks arranged through hinge connections to raise and lower the derrick
- (d) hinge connection between chassis and derrick
- (e) engines mounted on the chassis for propelling the chassis, drawing and lowering the derrick, and operating the hoist on the derrick
- (f) driver's cab and motive power controls mounted on the chassis
- (g) auxiliary jacks disposed on the chassis between front and rear wheels for transferring loads to the ground.

Source: Catalogs and testimony of Woody.

6. Most of the truck-mounted, portable masts or derricks constructed prior to World War II were built upon so-called standard truck chassis; that is, chassis which were available from standard truck manufacturers and which required certain modification or reinforcement to carry the portable derricks. (Evidence; expert testimony.) (Moon deposition, p. 15.)

7. Only mechanical skill was needed to strengthen the chassis and redistribute certain components of known front-erecting pole masts and to substitute a derrick for the pole mast of such structures to produce the front-erecting portable derrick of the alleged invention of Moon. (Expert testimony.)

8. Prior to June 28, 1947, that is, prior to one year before the filing of the application for the patent in suit, Waldrip Engineering Company published or caused to be published product announcements of a self-propelled portable derrick in the following:

“Oil Weekly,” May 5, 1947

“Oil and Gas Journal,” May 10, 1947.

9. Waldrip Engineering Company also published or caused to be published advertisements of a self-propelled, front-erecting, [64] portable derrick in the following:

“The Petroleum Engineer,” April, 1947

“The Petroleum Engineer,” May, 1947

“The Petroleum Engineer,” June, 1947

“Oil,” April 24, 1947.

In both of the advertisements in "The Petroleum Engineer" of April, 1947 and May, 1947, the following statements were made: "The Waldrip 321—the only self-propelled servicing and drilling rig that drives into location Nose First." In both advertisements, pictures of the "servicing and drilling rig" in unerected and erected states are included. In the illustration of the derrick as erected, the rear legs of the derrick straddle the driver's position and the hinge about which the derrick swings is above the driver's head. (Stipulation and publications.)

From the pictures and description in the various publications and product announcements cited above, it is clear that the unit is a self-propelled truck including a chassis, and front and rear wheels. The unit also includes a driver's position inasmuch as a cab and steering wheel are shown. Furthermore, a telescopic derrick is mentioned in the description and is illustrated particularly well in the advertisements in the "Petroleum Engineer." The fact that the telescopic derrick is pivotally mounted is made plain from the showing of the derrick in a horizontal position and also in an erected position, with the hinge point of the derrick being in the same position relative to the cab of the unit in both the recumbent and in the erected position of the derrick. It is also clear from the advertisements in the "Petroleum Engineer" that the derrick has four legs and that a hydraulic ram is used for raising and lowering the derrick. The ram is shown in its retracted position in the illustration of the recumbent derrick and in its extended [65] position in the

illustration of the erected derrick. The hinged connection of the hydraulic ram to the derrick and to the chassis is obvious by virtue of the connection of the ram to the derrick in both the erected and recumbent positions of the derrick. The illustration of the derrick in the erected position clearly shows the legs straddling the driver's position. (Evidence; publications listed above, expert testimony.)

10. A valid patent may not be obtained if "the invention was patented or described in a printed publication in this or a foreign country or in public use, or on sale in this country, more than one year prior to the date of application for patent in the United States," 35 U.S.C. 102.

11. To a person skilled in the art relating to oil well drilling and servicing equipment the text and pictures in the announcements and advertisements published by Waldrip Engineering Company in April, May and June of 1947 convey information sufficient to enable such person to make and use equipment substantially identical to that disclosed in the Moon patent in suit. (Testimony of Woody, Purdom and another.)

12. Waldrip Engineering Company did not experience commercial success in exploiting Mr. Moon's designs. (Moon deposition.)

13. Defendants manufacture currently

1. Telescopic derricks with rear erection back-in arrangement including engine in front,—“Rocket” —“Comet”

2. Pole mast, truck mounted units, rear-erection, back-in arrangement with engine in front—
“Cruiser”

3. Telescoping derricks with front erection drive-in arrangement including engine in rear—
“Clipper.”

Source: Franks catalogs 1955, 6 and 7.

14. Defendants have never sold in any year more drive-in than back-in units. Source: Testimony of Woody. [66]

15. Drive-in units, front erecting, engine in rear (Clipper) are more expensive to manufacture than back-in units. Source: Testimony of Woody.

16. Defendants have never made a unit in which a derrick hinged about a point over the head of the driver. (Testimony of Woody.)

17. Defendants have never made a unit in which a derrick was mounted for erection on a chassis in such fashion that the legs of the erected derrick straddled the cab or driver's position. Source: Testimony of Woody.

18. Defendants did not copy any unit or design of plaintiffs', but designed all equipment independently. Source: Testimony of Woody.

19. On June 28, 1948, Moon filed an application for patent in which he originally claimed broadly a front-erecting portable, truck-mounted derrick. (Evidence; file wrapper of application No. 35,666 which resulted in Patent No. 2,671,537, the patent here in suit.)

20. The Patent Office declined to grant claims

of such breadth, stating that it required no invention merely to reverse the location of components of known rear-erecting portable derricks to provide a front-erecting portable derrick. The patent in suit, however, was granted to Moon on a particular type of front-erecting portable derrick. The claims of the patent as issued cover a front-erecting portable truck-mounted derrick in which the rear legs of the derrick when erected straddle the driver's position; that is, the hinge point of the derrick is immediately above the driver's head. This feature presumably has the virtue of permitting the driver to look up within the derrick when it is in operation from a position within the derrick and furthermore permits the driver of the truck on which the derrick is mounted to spot the derrick with some degree of accuracy when [67] the derrick is driven onto a well location. (Evidence; file wrapper of United States Patent No. 2,671,537, the patent in suit; testimony of James Moon.)

21. Defendants have never made or sold a unit in which the driver was within the confines of the derrick legs; in defendants' unit the legs were either at the rear of the driver (at the rear of the vehicle) or entirely in front of the driver (at the extreme front end of the vehicle).

Dated this 27th day of February, 1958.

LYON & LYON,

/s/ By CHARLES G. LYON,

Attorneys for Defendant. [68]

Acknowledgment of Service Attached. [69]

[Endorsed]: Filed February 27, 1958.

PLAINTIFFS' EXHIBIT No. 101

[Title of District Court and Cause.]

PRE-TRIAL CONFERENCE ORDER

I.

The parties to this action are James Moon, Edmond M. Wagner and Philip Subkow, owners of the patent by mesne assignment. The defendants are Cabot Shops, Inc., a Massachusetts corporation, and Howard Supply Company, a California corporation. The pleadings are a Complaint filed February 27, 1957, as amended by Stipulation and Order dated January 3, 1958, and an Answer served March 29, 1957, which Answer by said Stipulation and Order constitutes the Answer to said Complaint as amended.

II.

Federal jurisdiction is invoked on the ground that this is an action for infringement of the patent under the Patent Laws of the United States, Title 35 U.S.C. and under Title 28 U.S.C., Section 1338(a).

III.

The following facts are admitted, and require no proof: [77]

1. United States Letters Patent 2,671,537 was issued to James Moon on March 9, 1954, as assignor to Western Oil Tool & Engineering Co., Inc., a California corporation, as assignee.

2. Said James Moon is a plaintiff in this action

Plaintiffs' Exhibit No. 101—(Continued)
and is also named Cleon James Moon, and the allegations of Paragraph I of the Complaint are true.

3. Plaintiffs are jointly the owners of said patent and that, except as stated in the following, the allegations of Paragraph II of the Complaint are true, except that defendants do not admit, but instead deny, that said patent was either duly or legally issued.

4. Plaintiffs by assignment in writing from Western Oil Tool & Engineering Co., Inc. have all of said corporation's right to collect damages for past infringement of said patent.

5. Plaintiffs did prior to December 27, 1957, notify defendant Howard Supply Company of their said alleged infringement of said patent, to wit, on or about November 8, 1956, and did notify defendant Cabot Shops, Inc., on August 17, 1955, and again on April 24, 1956, by letter in writing.

6. Franks Manufacturing Corporation was prior to the 5th day of April 1955 an Oklahoma corporation and had its principal offices at Tulsa, Oklahoma and a legal and established place of business in the southern district of California from and after March 9, 1954 until said 5th day of April 1955.

7. On or about said 5th day of April 1955 said Franks Manufacturing Corporation did merge with the Cabot Shops, Inc., a Massachusetts corporation, and that the merged corporations, the defendant in

Plaintiffs' Exhibit No. 101—(Continued)

the herein action, has continued the business of said Franks Manufacturing Corporation, through the Franks Division of said Cabot Shops, Inc., and has maintained since said 5th day of April 1955 and does now maintain a regular and established place of business in Tulsa, Oklahoma, and in Los Angeles County, [78] State of California, within said southern district of California.

8. The defendant herein did on February 24, 1956 sell to the Union Oil Company of California, within the southern district of California, a Super Senior Clipper Drive-In Vehicle, serial number 1861, and that the defendant and its predecessor corporation, the Franks Manufacturing Corporation, did subsequent to March 9, 1954 and prior to the bringing of this action, sell within the United States, including said sale to said Union Oil Company, sixteen (16) Clipper Drive-In units, to wit: one (1) Midget Clipper, advertised at page 1810 of the 1956 Catalog of defendant Cabot Shops, Inc., five (5) Senior Clippers, advertised at page 1885 of the 1957 Catalog of said defendant, four (4) Super Senior Clippers, advertised at page 1884 of said 1957 Catalog, and six (6) Giant Clippers, advertised at page 1883 of said Catalog.

9. Defendant has acquired all the liabilities of said Franks Manufacturing Corporation, an Oklahoma corporation, and

10. Defendant does not claim any ownership or any part of the right, title and interest in or to said

Plaintiffs' Exhibit No. 101—(Continued)

Letters Patent 2,671,537, or in or to the inventions and discovery secured thereby, nor any shop right, or any other right or license thereunder or thereto.

11. Mr. Wayland B. Woody gave and duly executed his deposition in Tulsa, Oklahoma, in June 1957 when called by plaintiffs and also at the same place and time gave a separate deposition for defendants upon stipulation; both said depositions are bound in one volume and on file in this Court; and said Wayland B. Woody, prior to aforesaid merger, was an officer of said Franks Manufacturing Corporation and since said merger has been at all times and now is a managing agent of defendant.

12. The Statement of Facts, appearing in only the following portion of Plaintiffs' Pre-Trial Statement of Facts, on file in this case and herein incorporated by this reference to the [79] extent herein specified; Statements appearing in Paragraphs 2 and all its subdivisions, 3 and all its subdivisions, 4(a), 5(a), (b), and (c), 8, 13(a) and (b), 14(a) and (b), 16 and all its subdivisions, 17, 21(a), 24(a), 48(a) and (b), 49 and all its subdivisions, 50(a), (b), (d) and (e), 52(a) and (d) and all subdivisions of (d), 53 and all its subdivisions, 54(a), 55, including A, B, C, D, H, I, J, L and subdivisions (a), (b), (c) and (d), and 58.

16. Conventional trucks as used in the construction of back-in units in which the derrick was carried to be hinged on the rear of the vehicle were not suitable to carry heavier derricks of the tele-

Plaintiffs' Exhibit No. 101—(Continued)

scopic type. Not only were their structural characteristics insufficient, but the weight distribution was also unsuitable for engineering and legal reasons; the legal reasons being the necessity for compliance with the various highway codes of the various states. In building the drive-in units in which the derrick is hinged at the front of the truck it became feasible to custom build the unit to obtain a weight distribution which would be desirable and which would satisfy both engineering and legal requirements for such structure.

17. The statement of facts appearing in the following portions only of the defendants' Pre-Trial Opening Statement on file in this Court, to wit: Paragraphs 4, 6 and 8, which are hereby incorporated by this reference.

18. Waldrip Engineering Company also published or caused to be published advertisements for a drive-in unit in the *Petroleum Engineer* of April, May and June, 1947, and in *Oil* of April 24, 1947.

19. The cost of construction of the Clipper Drive-In Units to Cabot Shops, Inc. is higher than the cost of manufacture of "Rocket" back-in units of comparable size and horsepower and other comparable specifications. [80]

IV.

Reservations as to the facts recited in Paragraph III above—None.

V.

The following facts, though not admitted, are not

Plaintiffs' Exhibit No. 101—(Continued)
to be contested at the trial by evidence to the contrary—None.

VI.

The following issues of fact, and no others, remain to be litigated upon the trial.

(a) All of the facts stated in Plaintiffs' Pre-Trial Statement of Facts and in Defendants' Pre-Trial Opening Statement not admitted to be true under Paragraph III of this Order; and

(b) The issues of facts corresponding to the issues of law set forth in Paragraph VIII.

VII.

The exhibits to be offered at the trial are as follows:

(a) List of Plaintiffs' documents and things intended to be offered by Plaintiffs, other than those to be used for impeachment, are hereto attached as Appendix A and made a part hereof by reference.

(b) All documents and things intended to be offered at the trial by defendants, other than those to be used for impeachment, are listed in Appendix B hereto attached and incorporated herein by this reference.

VIII.

The following issues of law, and no others, remain to be litigated upon the trial:

1. (a) Was the invention, claimed in the claims of the patent in suit, patented or described in any printed publication, cited by defendant Cabot Shops, Inc. in its answer to Plaintiffs' Interroga-

Plaintiffs' Exhibit No. 101—(Continued)

tories, before the invention thereof by James Moon?

(b) Was the invention patented or described in a printed publication in this country, cited by said Defendant in its answers to Plaintiffs' Interrogatories, more than one year prior to the filing of the application for the patent in suit?

2. If the invention of the patent in suit is not identically disclosed in any of the aforesaid patents and patent publications, as referred to in Paragraph 1, subparagraphs (a) and (b) above, is the difference between the subject matter sought to be patented by said patent and the said patents and publications such that the subject matter as a whole would have been obvious at the time the invention was made to persons having ordinary skill in the art to which said subject matter pertains?

3. Does the equipment as illustrated in the 1956 Catalog of defendant Cabot Shops, Inc., at page 1810 and in the 1957 Catalog at pages 1883, 1884 and 1885, and manufactured and sold by said defendant and its predecessor, Franks Manufacturing Corporation, constitute an infringement of the claims of the patent in suit?

4. Has the defendant Howard Supply Company infringed the patent in suit by sale of any of the foregoing equipment?

IX.

The foregoing admissions having been made by the parties, and the parties having specified the foregoing issues of fact and law remaining to be

Plaintiffs' Exhibit No. 101—(Continued)
litigated, this order shall supplement the pleadings
and govern the course of the trial of this cause, un-
less modified to prevent manifest injustice.

Dated: March 3, 1958.

/s/ WM. C. MATHES,
United States District Judge.

Approved as to form and content:

/s/ PHILIP SUBKOW,
Attorney for Plaintiffs.

LYON & LYON,
/s/ By CHARLES G. LYON,
Attorneys for Defendants. [82]

APPENDIX A

List of Plaintiffs' Exhibits

Wherever the reference Woody appears in the
column "Former Identification," it means the num-
bered Exhibit as introduced in connection with the
deposition given by Mr. Wayland B. Woody on
notice by Plaintiffs in Tulsa, June, 1957. Franks
means Franks Manufacturing Corporation.

Pre-Trial Exhibit 1—Name: Moon Patent 2,671,-
537.

2—Date of Exhibit: 6/24/48; Assignment Moon
to Western Oil Tool & Engineering Co., Inc.

3—2/25/55; Assignment Western Oil Tool & En-
gineering Co., Inc. to Moon and Wagner.

4—3/2/55; Assignment Moon and Wagner to
Philip Subkow.

Plaintiffs' Exhibit No. 101—(Continued)

5—3/1/56; Confirmation of right to recover for past infringements to Moon and Wagner by Western Oil Tool Engineering Co., Inc.

6—3/1/56; Confirmation of right to recover for past infringements to Subkow by Moon and Wagner.

7—1/25/57; Assignment of additional 2/15 parts to Subkow.

8—1957; Page 1390, Fred E. Cooper, Inc. 1957 Catalog.

9—1948; Page 203, Vol. 1 Composite Catalog of Oil Field and Pipe Line Equipment (1948, 16th Ed.).

10—1957; Page 1406, Fred E. Cooper, Inc. 1957 Catalog.

11—1948; Pages 1346 and 1347 of Vol. 1 of Composite Catalog of Ex. 9.

12—11/1948; Reprint A.S.M.E. article entitled "Portable Oil-Well Drilling and Servicing Equipment" by James Moon.

13—Photo of Details Franks Service Unit.

14—Photo—Same Unit Erecting.

15—1948; Pages 1349-1352 inclusive of vol. 1 of Catalog Ex. 9.

16—Photograph of Franks Back-In Unit—side view; Former Identification: Woody Ex. 43. [83]

17—Photograph of Franks Back-In Unit Erected; (Woody Ex. 44).

18—1937; Early Franks Back-In Unit using Hydraulic Jack; (Woody Ex. 42).

19—Photo of similar Unit; (Woody Ex. 42).

Plaintiffs' Exhibit No. 101—(Continued)

20—1938; White Patent 2,204,713; (Moon Affidavit, Ex. 15, Woody Ex. 37).

21—Woody Patent 2,204,716.

22—1942; Franks Catalog No. 42; (Woody Ex. 40).

23—Franks Drawing Rocket TD Assembly 39; (Woody Ex. 12).

24—Franks Assembly Dwg. 50; (Woody Ex. 13).

25—Page 10—1940 Franks Catalog; (Woody Ex. 45).

26—Franks Bulletin No. 114.

27—Moon Patent 2,240,852; (Woody Ex. 47).

28—12/20/47; Article—Shell Designs New Portable Electric Rig.

29—Waldrip 911 Catalog.

30—6/3/44; Moon's drawing.

31—11/5/45; Screw Lift Drive-In.

32—1/1952; Moon Patent 2,583,958; (Moon Affd. Ex. 2).

32-a—12/15/53; Moon Patent 2,662,797.

32-b—Moon Appln. Serial 10,412, filed Feb. 24, 1948.

33—9/20/46; Two-page letter Woody-White; (Woody Ex. 49-49a.)

34—12/12/46; Large drawing 321 Model.

35—12/12/46; Reduction of same.

36—1/14/47; F-321-2901—Main Chassis Assembly.

37—2/5/47; F-321-4503—Side Elevation.

38—2/8/47; E-902-4707—Derrick Raising Load.

39—2/15/47; E-902-4701—Origin of Loads.

Plaintiffs' Exhibit No. 101—(Continued)

40—2/17/47; E-902-4703—Stress Analysis No.

2. [84]

41—2/17/47; E-902-4702—Stress Analysis No. 1.

42—2/18/47; F-300-100—Assembly 300 Main

Drum.

43—2/19/47; E-902-4704—Graphical Force Diagram No. 3.

44—2/20/47; E-902-4705—Stress Analysis No. 4.

45—2/21/47; E-902-4706—Load Summary.

46—3/10/47; F-902-300—Upper Section of Derrick.

47—5/15/47; F-300-4501—Dimensional layout 300 Main Drum.

48—7/7/47; G-902-100—Lower Section of Derrick.

49—7/17/47; G-300-1150—Cylinder Assembly.

50—Un-dated Drawing—Side View of Sliding Derrick.

51—11/14/47—F-321-2900—Main Chassis Assembly.

52—12/10/47; F-321-4519—I. H. Axle Assembly.

53—1/1948; 321-4528—Side Elevation.

54—Book of Engineering Releases.

55—Abstract of same.

56—Status of Production—3 sheets and 2 drawings and 2 photos 321-1.

57—Status of Production—321-2, 3 sheets.

58—Status of Production—3 sheets, 421-1.

59—3/22/48; Weight Analysis—321-2, 4 pages.

60—3/22/48; Weight Analysis—421-1, 5 pages.

61—4/1/48; Weight Analysis—5 pages.

Plaintiffs' Exhibit No. 101—(Continued)

62—4/29/48; Weight Analysis—1 sheet, 321-3, 421-2. [85]

63—321-421 Waldrip Catalog; (Ex. 4 Moon Affd., Woody Ex. 34).

64—Photograph 321-1.

65—Photograph 321-1 Latch.

66—Photograph 321-1 partially raised.

67—Photograph 321-1, plan view—top removed.

68—Photograph 321-1, side view—top removed.

69—Photograph—Waldrip 421 Unit; (Moon Affd. Ex. 5).

70—Photograph—Waldrip Drive-In; (Moon Affd. Ex. 6).

71—Photograph front end of Waldrip Drive-In Unit; (Moon Affd. Ex. 7).

72—Photograph of Waldrip Drive-In Unit erected.

73—4/19/47; Advertisement, Petroleum Engineer front sheet.

74—4/24/47; Advertisement, Oil.

75—4/5/47; Advertisement, Oil Weekly; (Kenway Affd., Woody Ex. 36).

76—5/10/47; Advertisement, Oil & Gas Journal; (Kenway Affd., Woody Ex. 38).

77—2/1949; Waldrip Wildcatter; (Moon Dep. Ex. 9, Woody Ex. 35).

78—6/19/47; Advertisement, Petroleum Engineer.

79—Waldrip Brochure; (Moon Deposition Ex. 8).

80—Waldrip 1948 Catalog; (Moon Affd. Ex. 12).

81—Waldrip 1949 Catalog; (Moon Affd. Ex. 13).

Plaintiffs' Exhibit No. 101—(Continued)

82—Print p. 3—1939 Franks Catalog; (Woody Ex. 33).

83—Print of page 11 of Franks 1942 Catalog; (Woody Ex. 39).

84—Photograph of drawing of Dart Unit; (Woody Ex. 19). [86]

85—Catalog page 1883 of 1957 Catalog—Giant Clipper; (Woody Ex. 1).

86—9/3/50; Franks Drawing 100-075; (Woody Ex. 3).

87—Reduced Print of Ex. 86.

88—10/18/55; Drawing Clipper 65-44, Assembly 94-A; (Woody Ex. 7).

89—Drawing Clipper 65-44, Assembly 117X; (Woody Ex. 8).

90—5/21/56; Drawing Clipper 137-65, Assembly 113; (Woody Ex. 11).

91—Drawing showing Hinge details; (Woody Ex. 23).

92—Reduced Print of Exhibit 91.

93—9/1/53; Drawing Outrigger details—Dwg. 21988; (Woody Ex. 24).

94—Reduced Print of Exhibit 93.

95—Page 1886 of 1957 Catalog; (Woody Ex. 1).

96—Photograph Clipper Unit—road position; (Woody Ex. 26).

97—Photograph Clipper erected but not extended; (Woody Ex. 30).

98—Photograph of Unit shown in Exhibit 85; (Woody Ex. 32).

Plaintiffs' Exhibit No. 101—(Continued)

99—Photograph of Clipper, Terminal Drilling & Production Co. front end and side.

100—Photograph of Clipper (same as 99) rear end.

101—Page 1884 of 1957 Cabot Catalog showing Super Senior Clipper; (Woody Ex. 1).

102—1/19/55; Drawing 41-129 (Senior Clipper); (Woody Ex. 4).

102a—Reduction of drawing 41-129 (Senior Clipper).

103—6/1/55; Drawing Clipper 44 (Assembly 25A); (Woody Ex. 5).

104—4/30/56; Drawing Clipper 44DD (Assembly 109); (Woody Ex. 6).

105—7/8/55; Drawing Clipper 658DD (Assembly 48); (Woody Ex. 9).

106—4/6/56; Drawing Clipper 658-65 (Assembly 103); (Woody Ex. 10). [87]

107—Super Senior Clipper; (Woody Ex. 14).

108—Photograph Super Senior Clipper; (Woody Ex. 27).

109—Photograph of front end of Ex. 108; (Woody Ex. 28).

110—Photograph of Ex. 108, Derrick erected; (Woody Ex. 31).

111—Catalog sheet Franks Midget Clipper; (Woody Ex. 15).

112—Page 1810 of 1956 Cabot Catalog; (Woody Ex. 2).

113—Photograph of Midget Clipper; (Woody Ex. 16).

Plaintiffs' Exhibit No. 101—(Continued)

114—Photograph—Another view of Midget Clipper (Ex. 113); (Woody Ex. 17).

115—Photograph of Super Senior Clipper (Ex. 101); (Woody Ex. 18).

116—7/10/54; Drawing Midget Clipper; (Woody Ex. 20).

117—Drawing 99-005; (Woody Ex. 21).

118—Drawing 99-006; (Woody Ex. 22).

119—8/26/55; Drawing 27482; (Woody Ex. 25).

120—Page 1882 of Cabot Catalog 1957 "The Clipper"; (Woody Ex. 1).

121—Page 1804 of Cabot Catalog 1956 "Clipper"; (Woody Ex. 2).

122—Page 1806 of Cabot Catalog 1956 "Clipper"; (Woody Ex. 2).

123—Page 1809 of Cabot Catalog 1956; (Woody Ex. 2).

124—Front sheet Oil & Gas Journal; (Woody Ex. 48).

125—Page 21 of 1953 Franks Catalog; (Woody Ex. 46).

126—7/29/57; Advertisement, Jones & Laughlin Oil & Gas Journal.

127—Franks Clipper folder; (Woody Ex. 41).

128—Hopper 1957 Catalog.

129—Photograph of Hopper Unit road position.

130—Hopper Unit half erected. [88]

131—Hopper Unit erected.

132—IDECO Catalog No. 57, 1957.

133—Photograph IDECO Unit.

134—Wagner-Morehouse Catalog No. 57.

Plaintiffs' Exhibit No. 101—(Continued)

135—Above Deposition of Mr. Wayland B. Woody when called by Plaintiffs, and the exhibits forming a part thereof (note the deposition exhibits are also included in the above listed exhibits).

136—Defendants' answers to Interrogatories propounded by Plaintiffs.

APPENDIX B

List of Defendant's Exhibits

- A. Exhibit 1 to the Moon deposition.
- B. Exhibit 2 to the Moon deposition.
- C. Exhibit 3 to the Moon deposition.
- D. Exhibit 4 to the Moon deposition.
- E. Exhibit 5 to the Moon deposition.
- F. Exhibit 6 to the Moon deposition.
- G. Exhibit 7 to the Moon deposition.
- H. Exhibit 8 to the Moon deposition.
- I. Exhibit 9 to the Moon deposition.
- J. Exhibit 10 to the Moon deposition.
- K. Exhibit 11 to the Moon deposition.
- L. Exhibit 12 to the Moon deposition.
- M. Exhibit M—Oil & Gas Weekly.
- N. Exhibit N—Oil & Gas Journal.
- O. Exhibit O—Petroleum Engineer, June, 1947, Page 192.
- P. Exhibit P—Petroleum Engineer, May, 1947, Page 234.
- Q. Petroleum Engineer, April, 1947, The Cover.
- R. Oil, April 24, 1947 (a cut-out portion of the ads to be supplied by Mr. Subkow).

Plaintiffs' Exhibit No. 101—(Continued)

S. Book of prior art patents.

T. File wrapper of the patent in suit.

U. Deposition of Moon.

V. Moon affidavit and exhibits thereto filed in opposition to the motion for summary judgment.

W. Franks Catalog of 1939, Exhibit 33 to the deposition of Woody.

X. Model. [90]

[Endorsed]: Filed March 3, 1958.

[Title of District Court and Cause.]

ORDER

Defendants' motion to amend its answer having come on for hearing the 3rd day of March, 1958, and defendants having in open Court withdrawn said motion,

It Is Ordered that said motion be stricken from the records of this cause.

Dated: March 3rd, 1958.

/s/ WM. C. MATHES,

United States District Judge.

Approved As To Form:

LYON & LYON,

/s/ By CHARLES G. LYON,

Attorneys for Defendants. [70]

Acknowledgment of Service Attached.

[Endorsed]: Filed March 7, 1958.

[Title of District Court and Cause.]

ORDER

This cause coming on to be heard on plaintiffs' motion for an order requiring defendant Howard Supply Company to answer interrogatories propounded by plaintiffs to defendants Howard Supply Company and Cabot Shops, Inc., and requiring defendant Cabot Shops, Inc. to answer certain interrogatories fully,

It Is Hereby Ordered that defendant Howard Supply Company shall serve and file not later than March 13, 1958, answers under oath to the interrogatories heretofore served by plaintiffs on defendants, and that defendant Cabot Shops, Inc. shall serve and file not later than March 13, 1958, further answers under oath to the said interrogatories, as follows: the interrogatory substituted by stipulation filed February 17, 1958, for the interrogatories numbered V, VI, VII and to [31] also further answer interrogatories numbered VIII, XIII, XV, XVIII, XX, XXI, XXIII and XXIV, and all parts thereof, said answers to be full answers to said interrogatories.

Dated: March 3, 1958.

/s/ WM. C. MATHES,

United States District Judge.

Approved As To Form:

LYON & LYON,

/s/ By CHARLES G. LYON,

Attorney for Defendants.

Acknowledgment of Service Attached.

[Endorsed]: Filed March 7, 1958. [32]

PLAINTIFFS' EXHIBIT No. 105

[Title of District Court and Cause.]

ANSWERS OF DEFENDANT HOWARD SUPPLY COMPANY TO CERTAIN INTERROGATORIES

Comes Now the defendant, Howard Supply Company, and answers the following interrogatories of plaintiffs:

Interrogatory No. I:

Do the following drawings and catalogue pages each correctly show equipment manufactured or sold by defendant Howard Supply Co., defendant Cabot Shops, Inc., or by its predecessor, Franks Manufacturing Corporation, since March 9, 1954?

Answer:

(a) If as to any of the following catalogue pages the answer is in the affirmative, give the number of units of [33] such equipment so manufactured or sold by each defendant separately and the dates of sale or of manufacture if the same had not been sold, to wit:

1. The Midget Clipper shown at page 1810 of the 1956 Catalogue of defendant Cabot Shops, Inc.

Answer:

No. The defendant, Howard Supply Company, has not sold any of the accused devices.

2. The Giant Clipper shown at page 1883 of the 1957 Catalogue of defendant Cabot Shops, Inc.

Plaintiffs' Exhibit No. 105—(Continued)

Answer:

No.

3. The Super Senior Clipper shown at page 1884 of the 1957 Catalogue of defendant Cabot Shops, Inc.

Answer:

No.

4. The Senior Clipper shown at page 1885 of the 1957 Catalogue of Cabot Shops, Inc.

Answer:

No.

Interrogatory No. II:

Have defendants or either of them since March 9, 1954, manufactured or sold any equipment similar to any of the aforesaid equipment and not shown in any of the aforesaid Catalogue pages? If the answer is in the affirmative, designate the model name, model number, to whom the same was sold, where the same was sold and when the same was sold. If the answer to this Interrogatory II is in the affirmative, state whether the said models are shown in any of the exhibits introduced in connection with the [34] deposition of Mr. Wayland B. Woody taken in Tulsa, Oklahoma in June of 1957, and if so introduced identify the said exhibits by the exhibit number. If not so introduced, state whether defendants or either of them have in their possessions drawings, photographs, descriptive matter or printed matter, catalogues or advertisement showing the same.

Plaintiffs' Exhibit No. 105—(Continued)

Answer:

No.

Interrogatory No. III:

In connection with any of the aforesaid items identified in Interrogatory No. I, were any of the aforesaid sold within the Southern District of California since March 9, 1954? If the answer to the aforesaid interrogatory is in the affirmative, give the name of the purchaser and the date of the sale.

Answer:

No. [35]

Interrogatory No. XX:

State in what respect defendant claims that the Patent No. 2,671,537 was not either duly or legally issued, as alleged in Paragraph 2 of Defendants' Answer.

Answer:

Defendant, Howard Supply Company, has no information in this regard.

Interrogatory No. XXI:

State the date upon which it is alleged by defendants in Paragraph 5 of their Answer that the invention, identified by defendant as the "alleged invention" in said Paragraph 5, was made and state if defendant will rely on evidences other than those referred to in Paragraph 6 and 7 of the Answer to show the state of the art and, if so, state of what such evidences consist.

Plaintiffs' Exhibit No. 105—(Continued)

Answer:

Defendant, Howard Supply Company, has no information in this regard. [36]

Interrogatory No. XXIII:

Give the name, date, title and pages of the publications referred to in Paragraph 6 of the Defendants' Answer.

Answer:

Defendant, Howard Supply Company, has no information in this regard.

Interrogatory No. XXIV:

Give the numbers, dates and country issuing each of the patents referred to in Paragraph 6 of said Answer, which defendants will urge at the trial best disclose the material elements and combinations of elements as alleged in said Paragraph 6.

Answer:

Defendant, Howard Supply Company, has no information in this regard.

Interrogatory No. XXV:

Give the date and place of the public use referred to in Paragraph 7 of the Answer and the name of those making such use and the names of all witnesses known to defendants having knowledge of such use.

Answer:

Defendant, Howard Supply Company, has no information in this regard.

Plaintiffs' Exhibit No. 105—(Continued)

Interrogatory No. XXVI:

State when, where and by whom "Moon's invention was 'on sale'", as is alleged by defendants in their Motion to Amend their Answer set to be heard on February 10th. [37]

Answer:

Defendant, Howard Supply Company, has no information in this regard.

Interrogatory No. XXVII:

Have defendants or either of them any documents, drawings or correspondence relating to the placing on sale, as alleged in said Motion, and, if so, identify the same.

Answer:

No.

Dated this 10th day of March, 1958.

HOWARD SUPPLY
COMPANY,

/s/ By H. E. HOWARD, Jr.,
Secretary-Treasurer. [38]

Duly Verified. [39]

Acknowledgment of Service Attached. [40]

[Endorsed]: Filed March 21, 1958.

PLAINTIFFS' EXHIBIT No. 103

[Title of District Court and Cause.]

DEFENDANT'S FURTHER ANSWERS TO INTERROGATORIES PROPOUNDED BY PLAINTIFFS

Comes Now the defendant, Cabot Shops, Inc., and further answers certain of the interrogatories propounded by plaintiffs: Interrogatory substituted by stipulation for Interrogatories V, VI and VII.

Give for each model referred to in Interrogatory No. I and the model referred to in Interrogatory No. II sold by defendants or either of them the following information:

1. Did the Howard Supply Co. or the Franks Manufacturing Corporation, predecessor in business of defendant Cabot Shops, Inc., prior to the manufacture or sale by the Franks Manufacturing Corporation of any of the equipment referred to in Interrogatory I or Interrogatory II, manufacture or sell portable telescopic derricks such as or similar to those advertised by said Franks Manufacturing Corporation at pages 1349-1352, both inclusive [71] of Volume 1 of the Composite Catalog of Oil Field and Pipeline Equipment (1948-16th Edition)?

2. If the answer to the foregoing Interrogatory I is in the affirmative, give with respect to each of such equipment so sold:

- (a) The model number thereof;
- (b) The weight on the front wheels of the model

Plaintiffs' Exhibit No. 103—(Continued)

moving under its own power on the road, the number of such front wheels and the state or states to which the same were shipped, and the dates of each such shipment, unless the same has been previously identified, and

(c) The weight on the rear wheels of the model moving under its own power on the road, the number of such rear wheels and the state or states to which the same were shipped, and the dates of each such shipment, unless the same has been previously identified, and

(d) If the facts referred to in 2 above, a to c all inclusive, are unknown to defendants, give the total weight on the front and rear wheels of the model moving under its own power on the road, the number of such front and rear wheels and the state or states to which the same were shipped, and the dates of each such shipment, and

(e) The front overhang of the derrick in front of the bumper, if a bumper was used, or, if no bumper was used, in front of (a) the front end of the vehicle, (b) the forward most point of the front tires, and (c) the state to which each of so identified units were so shipped and the dates of such shipment.

Answer: Prior to March 20, 1958, defendants, Cabot Shops, Inc. and Franks Manufacturing Corporation, have sold back-in units similar to those specified in said interrogatory, which units, because of excess weight on the front and/or rear axles [72]

Plaintiffs' Exhibit No. 103—(Continued)
and wheels and the front overhang, did and do not comply with the laws of California, Oklahoma and Texas, and do require special permission for moving. Because there were no scales available prior to 1942, it cannot definitely be ascertained whether units sold prior to 1942 did and do fail to comply with the laws of other states. Further answering said interrogatory, Cabot Shops, Inc. and Franks Manufacturing Corporation have manufactured drive-in units which likewise fail to comply with the highway laws of California, Oklahoma and Texas when customers add to the units delivered them the auxiliary equipment customarily employed upon such units.

Interrogatory No. XIII:

Has any officer or employee of Franks Manufacturing Corporation seen a 321 or a 421 Drive In unit manufactured by Waldrip Engineering Co.? If the answer is in the affirmative, give the name of such officer or employee and the date on which the same was first seen.

Answer: Further answering Interrogatory XIII, it is stated that Wayland B. Woody saw a Waldrip Drive In unit in about 1951, although he cannot be certain as to the date. Whether the unit seen by Mr. Woody was a 321 or a 421 model, he did not then know and does not now know; furthermore, Mr. Woody did not then know and does not now know whether the Waldrip Drive In unit he saw was either a 321 or a 421 model. Whether or not

Plaintiffs' Exhibit No. 103—(Continued)

Mr. Corey also saw such a unit in about 1951 is unknown.

Interrogatory No. XV:

Prior to the design of the first Clipper unit by Franks Manufacturing Corporation did any officer or employee of Franks Manufacturing Corporation see any drawings, photographs, catalogues of the Drive In unit manufactured by Waldrip Engineering Co? If the answer is in the affirmative, give the date when any thereof was first seen and identify the same if the same forms any exhibit introduced in connection with the aforesaid depositions of [73] Mr. Woody or Mr. Moon.

Answer: Further answering Interrogatory XV, Mr. Woody has definitely seen the Waldrip Wild Catter but has no present recollection as to when he first saw it.

Interrogatory No. XVIII:

Did the Franks Manufacturing Corporation sell to the Richfield Oil Company in California a portable telescopic derrick mounted on a motor vehicle in which the engine was placed behind the cab? If the answer to this interrogatory is in the affirmative, give the model number, date of sale and place of delivery of such unit. If the said unit is shown in any of the catalogue pages referred to in Interrogatory No. I, identify the model to which said unit corresponds. If the said unit is not shown in any of the aforesaid catalogue pages, do defendants or

Plaintiffs' Exhibit No. 103—(Continued)

either of them have in their possession or under their control drawings, photographs or other representations of said equipment?

Answer: Further answering Interrogatory XVIII, defendants now are informed that plaintiffs' interrogatory was not directed to the sale of a drive in unit. Franks Manufacturing Corporation did sell Richfield Oil Company in California a portable telescopic derrick mounted on a trailer connected to a White tractor, there being an engine mounted adjacent the forward end of the trailer. There was also an engine for propelling the tractor mounted adjacent the forward end of the tractor. The unit was known as "Model 90' Trailer Telescoper Serial 882." It was sold in 1942 and delivered in California. The said unit is not shown in any catalogue page referred to in Interrogatory No. I. Defendants have in their possession drawings and photographs of said equipment, which drawings and photographs were displayed to counsel for plaintiffs, Philip Subkow, March 20, 1958.

Interrogatory No. XX:

State in what respect defendant claims that the Patent [74] No. 2,671,537 was not either duly or legally issued, as alleged in Paragraph 2 of Defendants' Answer.

Answer: Further answering Interrogatory XX, defendants' contentions are set forth in the pretrial conference order.

Plaintiffs' Exhibit No. 103—(Continued)

Interrogatory No. XXI:

State the date upon which it is alleged by defendants in Paragraph 5 of their Answer that the invention, identified by defendant as the "alleged invention" in said Paragraph 5, was made and state if defendant will rely on evidences other than those referred to in Paragraphs 6 and 7 of the Answer to show the state of the art and, if so, state of what such evidences consist.

Interrogatory No. XXII:

State what part or parts of the invention or improvement referred to in Paragraph 5 of the Answer does not embody substantial variations of changes from that which belong to the state of the art as it existed at the time of the alleged inventions thereof, as alleged in Paragraph 5 of Defendants' Answer.

Interrogatory No. XXIII:

Give the name, date, title and pages of the publications referred to in Paragraph 6 of the Defendants' Answer.

Answer: Further answering Interrogatories XXI, XXII and XXIII, the evidence to be relied upon by defendant, Cabot Shops, Inc., as to prior art will consist of the patents and publications, copies of which appear in connection with Exhibits M, N, O, P, Q, R, S and T. Defendants accept December 16, 1946 as the date upon which Mr. James Moon made the alleged invention of the patent in suit.

Plaintiffs' Exhibit No. 103—(Continued)
Interrogatory No. XXIV:

Give the numbers, dates and country issuing each of the patents referred to in Paragraph 6 of said Answer, which defendants will urge at the trial best disclose the material elements and combinations of elements as alleged in said Paragraph 6.

Answer: Further answering Interrogatory XXIV, defendants are currently of the opinion that the patents to Morton and Evans, copies of which appear in Exhibit S, are the best patent references.

CABOT SHOPS, INC.,
/s/ By WAYLAND B. WOODY,
Chief Engineer.

Duly Verified.

Acknowledgment of Service Attached.

[Endorsed]: Filed March 21, 1958. [75]

PLAINTIFFS' EXHIBIT No. 104

[Title of District Court and Cause.]

STIPULATION

It Is Stipulated by and between the parties hereto, through their respective counsel, that Howard Supply Company may, through its counsel, adopt the answers of Cabot Shops, Inc. to interrogatories propounded by plaintiffs modified by the stipulation of February 17, 1958 and not answered by Howard in its answers dated March 10, 1958, when answered by the defendant, Cabot Shops Inc., and that upon

Plaintiffs' Exhibit No. 104—(Continued)
said adoption by defendant, Howard Supply Company, through and by its counsel, said answers shall be deemed to have been made by said defendant, Howard Supply Company, and under oath.

Dated this 12th day of March, 1958.

/s/ PHILIP SUBKOW,
In Propria Persona,
Attorney for Plaintiffs.

LYON & LYON,
/s/ By CHARLES G. LYON,
Attorneys for Defendants.

Approved March 25, 1958.

/s/ WM. C. MATHES,
United States District Judge.

[Endorsed]: Filed March 25, 1958. [41]

In the United States District Court, Southern
District of California, Central Division

Civil Action No. 289-57-WM

JAMES MOON, EDMOND M. WAGNER and
PHILIP SUBKOW, Plaintiffs.

vs.

CABOT SHOPS, INC., et al., Defendants.

FINDINGS OF FACT, CONCLUSIONS OF
LAW AND JUDGMENT

This Cause coming on to be heard, and the plaintiffs and defendants having offered evidence, both documentary and oral, and the Court being fully advised hereby enters the following findings of fact, conclusions of law and judgment.

Findings of Fact

1. By this action, plaintiffs James Moon, Edmond M. Wagner and Philip Subkow, joint owners of United States Letters Patent No. 2,671,537 seek, against defendants Cabot Shops, Inc. and Howard Supply Company, an injunction and damages by reason of the alleged infringement by the defendants.

2. The Court adopts as the findings of fact each statement admitted to be true in the Pretrial Conference Order entered [91] March 3, 1958, Item III, 1 through 19, including each statement of fact referred to in Item III (12) as fully as if each such statement were set forth verbatim herein.

3. Mr. Moon made the invention claimed by the patent in suit December 12, 1946.

4. The invention claimed in the claims of the patent in suit was not patented or described in any printed publication (Exhibits M through T, both inclusive) cited by the defendant Cabot Shops, Inc. in its Answers to Plaintiffs' Interrogatories No. XIII, dated March 20, 1958 and filed March 21, 1958.

5. It does not clearly appear from the evidence that the devices described in the printed publications embody the invention of the patent in suit, the details not being apparent from the advertisements (Exhibits M through R).

6. The invention of the patent in suit was not patented or described in a printed publication cited by the defendant Cabot Shops, Inc. in its Answers to Plaintiffs' Interrogatories as set forth in Finding No. 4 more than one year prior to the filing of the application for the patent in suit.

7. The application of the patent in suit does not contain any caveat on the face of the issued Letters Patent giving notice of any claim to any filing date earlier than the filing date of the patent in suit.

8. Mr. Moon filed on February 24, 1948 an application for Letters Patent, Exhibit 46.

9. The invention described in the patent represents an inventive advance over the prior art.

10. The defendants' drive-in units are correctly shown at page 1810 of Exhibit 55 and pages 1883, 1884 and 1885 of Exhibit 54 and in Exhibits 57, 59, 93, 94 and 95.

11. Said drive-in units referred to in Finding No. 10 do not infringe the claims of the patent in [92] suit.

Conclusions of Law

1. The plaintiffs are the owners of the patent in suit.

2. The patent in suit and each claim thereof is good and valid in law.

3. Plaintiffs are not entitled to carry the effective filing date of the patent in suit to February 24, 1948, the filing date of the application Exhibit 46.

4. In view of the state of the prior art the scope of the invention should be closely limited and so that the claims are entitled to a very narrow range of equivalents and the said range of equivalents does not include the accused devices of defendants.

5. None of the claims of the patent in suit are infringed by the drive-in units referred to in Finding of Fact No. 10.

Judgment

In accordance with the foregoing Findings of Fact and Conclusions of Law, it is Adjudged and Decreed:

1. The patent in suit and each of the claims thereof is good and valid in law.

2. None of the claims of the patent in suit have been infringed by defendants.

3. The complaint herein be and the same is hereby dismissed, and plaintiffs shall take nothing thereby.

4. Each party shall bear its own costs, and there shall be no award of attorneys' fees.

Dated at Los Angeles, California this 7th day [93]
of June, 1958.

/s/ WM. C. MATHES,

United States District Judge.

Disapproved as to form:

LYON & LYON,

/s/ By CHARLES G. LYON,

Attorneys for Defendants. [94]

Acknowledgment of Service Attached.

[Endorsed]: Filed June 9, 1958. Entered June
10, 1958.

United States District Court
Southern District of California

Office of the Clerk, Room 231, U. S. Post Office &
Court House, Los Angeles 12, California

Lyon & Lyon, Esqs. 811 West 7th Street, Los An-
geles 17, Calif. Philip Subkow, Esq. 727 West
7th Street, Los Angeles 17, Calif.

RE: Moon, et al., vs. Cabot Shops, Inc., et al., No.
289-57-WM.

You are hereby notified that judgment in the
above-entitled case has been entered this day in the
docket.

Dated: June 10, 1958.

CLERK, U. S. District Court,
By C. A. SIMMONS,
Deputy Clerk. [95]

[Title of District Court and Cause.]

NOTICE OF APPEAL TO THE COURT OF
APPEALS FOR THE NINTH CIRCUIT

To the Clerk of the Above Entitled Court and To
The Defendants, Cabot Shops, Inc. and Howard
Supply Company, and To Charles G. Lyon,
Esq., of Lyon & Lyon, their attorneys:

Notice Is Hereby Given that James Moon, Ed-
mond M. Wagner and Philip Subkow, plaintiffs
above named, hereby appeal to the Court of Ap-
peals for the Ninth Circuit from the final Judg-
ment entered in this action on the 10th day of June,
1958, and particularly from that portion of the
Judgment as follows:

“2. None of the claims of the patent in suit have
been infringed by defendants.

“3. The complaint herein be and the same is
hereby dismissed, and plaintiffs shall take nothing
thereby. [96]

“4. Each party shall bear it own costs, and there
shall be no award of attorneys' fees.”

Dated: June 27, 1958.

JAMES MOON,
EDMOND M. WAGNER,
PHILIP SUBKOW,
Appellants,

/s/ By PHILIP SUBKOW,

In Propria Persona and Attorney for Appellants,
James Moon and Edmond M. Wagner. [97]

Acknowledgment of Service Attached. [98]

[Endorsed]: Filed July 1, 1958.

[Title of District Court and Cause.]

NOTICE OF APPEAL

To the Clerk of the Above-Entitled Court and To
The Plaintiffs, James Moon, Edmond M. Wagner and Philip Subkow, and to Philip Subkow,
their attorney:

Notice Is Hereby Given that Cabot Shops, Inc. and Howard Supply Company, defendants herein, hereby cross appeal to the Court of Appeals For the Ninth Circuit from the judgment entered in this action on the 10th day of June, 1958, and particularly from that portion of the judgment as follows:

“1. The patent in suit and each of the [99] claims thereof is good and valid in law.

“4. Each party shall bear its own costs, and there shall be no award of attorneys’ fees.”

Dated at Los Angeles, California, this 3rd day of July, 1958.

CABOT SHOPS, INC. and
HOWARD SUPPLY
COMPANY,
Cross-Appellants,

LYON & LYON,
CHARLES G. LYON,

/s/ By CHARLES G. LYON,
Attorneys for Cross-Appellants.

Acknowledgment of Service Attached. [101]

[Endorsed]: Filed July 3, 1958.

[Title of District Court and Cause.]

DESIGNATION OF RECORD ON APPEAL

Pursuant to Rule 75(a) F.R.C.P., Plaintiffs-Appellants, hereby designate for inclusion in the record on appeal to the United States Circuit Court of Appeals for the Ninth Circuit, taken by notice of appeal filed the 1st day of July, 1958, the following portions of the record, proceedings, testimony and evidence in this action:

Pleadings:

1. Original Complaint.
2. Answer to the original Complaint.
3. Stipulation for Amendment of Complaint, filed January 3, 1958, signed by Judge Harrison.
4. Defendants' Motion to Amend the Answer, filed January 3, 1958. [102]
5. Order entered March 3, 1958, striking Motion Item 4.
6. Answer of Defendant Cabot Shops, Inc., filed February 21, 1958, to Interrogatories Propounded by Plaintiffs (These Answers are in evidence as Exhibit 102).
7. Order directing Defendant Howard Supply Company to Answer Interrogatories Propounded by Plaintiffs and directing Defendant Cabot Shops to make further Answers, filed March 7, 1958.
8. Answer of Defendant Howard Supply Com-

pany, dated March 10, 1958, to Plaintiffs' Interrogatories (Exhibit 105).

9. Stipulation, dated March 12, 1958, for adoption by Howard Supply Company of the Answers of Defendant Cabot Shops, Inc. to Plaintiffs' Interrogatories (Exhibit 104).

10. Further Answer by Defendant Cabot Shops, Inc., filed March 21, 1958, to Interrogatories Propounded by Plaintiffs (Exhibit 103).

Pretrial:

11. Pretrial Conference Order, filed March 3, 1958 (Exhibit 101).

12. Plaintiffs' Pretrial Statement of Facts, filed February 26, 1958, incorporated in said Pretrial Conference Order by reference.

13. Defendants' Pretrial Opening Statement, filed February 27, 1958, referred to in said Pretrial Conference Order.

Judgment:

14. Findings of Fact, Conclusions of Law and Judgment [103] entered June 10, 1958.

15. Entry of Judgment.

16. Notice of entry of said Judgment, dated June 10, 1958.

17. Notice of Appeal by Plaintiffs, filed July 1, 1958.

18. This Designation.

19. Statement of Points on Appeal relied upon by Plaintiffs.

20. Order for forwarding of exhibits, transcript and record to the Appellate Court.

21. Certificate of Clerk.

22. Plaintiffs' Documentary Exhibits—Exhibits 1 through 21, both inclusive; 23 through 107, both inclusive.

23. Defendants' Documentary Exhibits—G; H; L through T, both inclusive; T-1; AA; AB; AC; AF; AG; AK.

24. Transcript of Proceedings:

Transcript of Proceedings of March 25, 1958:

* * * * * [104]

Transcript of Proceedings of March 26, 1958:

* * * * * [106]

Transcript of Proceedings of March 27, 1958:

* * * * * [107]

Transcript of Proceedings of March 28, 1958:

* * * * *

25. Woody Deposition (Exhibit 98):

* * * * * [108]

Dated: July 17, 1958.

/s/ PHILIP SUBKOW,

In Propria Persona and Attorney for Appellants,
James Moon and Edmond M. Wagner. [110]

Acknowledgment of Service Attached. [111]

[Endorsed]: Filed July 21, 1958.

[Title of District Court and Cause.]

STATEMENT OF POINTS RELIED ON BY
PLAINTIFFS-APPELLANTS ON APPEAL

1. The Court erred in finding that the defendants' drive-in units do not infringe the claims of the patent in suit.

2. The Court erred in concluding that in view of the state of the prior art the scope of the invention should be closely limited and so that the claims are entitled to a very narrow range of equivalents and the said range of equivalents does not include the accused devices of defendants.

3. The Court erred in concluding that none of the claims of the patent in suit are infringed by the drive-in units of defendants.

4. The Court erred in concluding that the plaintiffs are not entitled to carry the effective filing date of the patent in suit to February 24, 1948, the filing date of application of Serial No. 10,412 (Exhibit 46).

5. The Court erred in its judgment that (a) none [112] of the claims of the patent in suit have been infringed by defendants, (b) dismissing the complaint and (c) denying relief to plaintiffs.

/s/ PHILIP SUBKOW,

In Propria Persona and Attorney for Appellants,
James Moon and Edmond M. Wagner. [113]

Acknowledgment of Service Attached. [114]

[Endorsed]: Filed July 21, 1958.

[Title of District Court and Cause.]

DESIGNATION OF RECORD
ON APPEAL

In addition to the portions of the record designated by plaintiffs-appellants, defendants-cross-appellants hereby designate for inclusion in the record on appeal to the United States Court of Appeals for the Ninth Circuit, pursuant to the notice of appeal filed by defendants-cross-appellants July 3, 1958, the following portions of the record, proceedings, testimony and evidence in this action:

1. All portions of the transcript of proceedings of the trial March 25, 26, 27 and 28 omitted by plaintiffs-appellants' designation heretofore filed.
2. All exhibits offered by either plaintiffs or [115] defendants and received in evidence not designated in plaintiffs-appellants' designation.
3. This designation.

LYON & LYON,
/s/ By CHARLES G. LYON,
Attorneys for Defendants.

Acknowledgment of Service Attached. [116]

[Endorsed]: Filed July 25, 1958.

[Title of District Court and Cause.]

STATEMENT OF POINTS RELIED UPON BY
DEFENDANTS-CROSS-APPELLANTS

1. The Court erred in finding that the invention claimed in the claims of the patent in suit was not patented or described in any printed publication (Exhibits M through T, both inclusive) cited by the defendant Cabot Shops, Inc. in its Answers to Plaintiffs' Interrogatories No. XIII, dated March 20, 1958 and filed March 21, 1958.

2. The Court erred in finding that it does not clearly appear from the evidence that the devices described in the printed publications embody the invention of the patent in suit, the details not being apparent from the advertisements (Exhibits M through R).

3. The Court erred in finding that the invention of the patent in suit was not patented or described in a printed [117] publication cited by the defendant Cabot Shops, Inc. in its Answers to Plaintiffs' Interrogatories as set forth in Finding No. 4 more than one year prior to the filing of the application for the patent in suit.

4. The Court erred in finding that the invention described in the patent represents an inventive advance over the prior art.

5. The Court erred in finding that the defendants' drive-in units are correctly shown at page 1810 of Exhibit 55 and pages 1883, 1884 and 1885

of Exhibit 54 and in Exhibits 57, 59, 93, 94 and 95.

6. The Court erred in failing to find that each and every element of the claims of the patent in suit would be apparent to a person skilled in the art from the advertisements (Exhibits M through R) published by Waldrip more than one year prior to the filing of the application for the Letters Patent in suit.

7. The Court erred in concluding that the patent in suit and each claim thereof is good and valid in law.

8. The Court erred in failing to conclude that the Letters Patent in suit and each of the claims thereof are invalid and void under Title 35 U.S.C. Section 102 (b) as the invention was described in a printed publication in this country more than one year prior to the date of the application for patent in the United States.

9. The Court erred in adjudging that the patent in suit and each of the claims thereof are good and valid in law.

LYON & LYON,

/s/ By CHARLES G. LYON,

Attorneys for Defendants. [118]

Acknowledgment of Service Attached. [119]

[Endorsed]: Filed July 25, 1958.

[Title of District Court and Cause.]

CERTIFICATE BY CLERK

I, John A. Childress, Clerk of the above-entitled Court, hereby certify that the items listed below constitute the transcript of record on appeal to the United States Court of Appeals, for the Ninth Circuit, in the above-entitled matter:

A. The foregoing pages numbered 1 to 119, inclusive, containing the original:

Complaint.

Answer.

Stipulation re amendment to complaint.

Notice of Motion and Motion to amend answer.

Defendant's Answers to interrogatories.

Order directing defendants to answer interrogatories.

Answers of Defendant Howard Supply Co. to certain interrogatories.

Stipulation re adoption of answers to interrogatories.

Plaintiffs' Pretrial Statement of Facts.

Defendants' Pretrial opening Statement.

Order, filed 3/7/58 striking defendants' motion to amend answer.

Defendant's further answers to interrogatories.

Pre-Trial Conference Order.

Findings of Fact, Conclusions of Law and Judgment.

Clerk's notice of entry of Judgment.

Notice of Appeal (Plaintiffs).

Notice of Appeal (Defendants).

Plaintiff's Designation of Record on Appeal.

Statement of Points relied on by Plaintiffs-Appellants.

Defendant's Designation of Record on appeal.

Statement of Points relied upon by Defendant-Appellants.

B. Five volumes of Reporter's Official Transcript of proceedings had on:

March 25, 1958 (Pages A to TT).

March 25, 1958 (Pages 1 to 94).

March 26, 1958.

March 27, 1958.

March 28, 1958.

C. Plaintiff's Exhibits:

1, 1-A, 2 to 21, inclusive, 23 to 107, inclusive.

Defendant's Exhibits:

A, C, to H, inclusive; J, L to T-1, inclusive; U, X, Y, AA, AB, AC, AF, AG, AH.

I further certify that my fee for preparing the foregoing record, amounting to \$2.00, has been paid by appellant.

Dated: August 5, 1958.

[Seal]

JOHN A. CHILDRESS,

Clerk,

/s/ By WM. A. WHITE,

Deputy Clerk.

In the United States District Court, Southern
District of California, Central Division

No. 289-57 WM

JAMES MOON, EDMOND M. WAGNER, and
PHILIP SUBKOW, Plaintiffs,

vs.

CABOT SHOPS, INC., a corporation, and CABOT
SHOPS, INC., dba FRANKS MANUFACTURING
COMPANY, HOWARD SUPPLY
COMPANY, a corporation, Defendants.

REPORTERS' TRANSCRIPT OF
PROCEEDINGS

(Partial)

Los Angeles, California

Tuesday, March 25, 1958, 9:30 a.m.

Honorable William C. Mathes, Judge presiding.

Appearances: For the Plaintiffs: Philip Subkow, Esq., 626 Roosevelt Building, 727 West Seventh Street, Los Angeles 17, California. For the Defendants: Lyon & Lyon, by Charles G. Lyon, Esq., 811 West Seventh Street, Los Angeles 17, California; and Kenway, Jenney, Witter & Hildreth, by Herbert P. Kenway, Esq. and George W. Crowley, Esq., 24 School Street, Boston 8, Mass.; and Kenneth W. Brown, Esq., 77 Franklin Street, Boston 10, Massachusetts.

The Court: Are there any ex parte matters?

The Clerk: No ex parte matters, your Honor.

The Court: Call the calendar.

The Clerk: Case No. 289-57, James Moon, et al., versus Cabot Shops, Inc., et al.

Mr. Subkow: Ready for the plaintiff, your Honor.

Mr. Lyon: Ready for the defendant, your Honor.

At this time, if the court please——

The Court: How long will this case take? As you know, I wasn't expecting to hear this case.

Mr. Subkow: It was estimated at six days at the pretrial conference, your Honor.

The Court: Six days?

Mr. Lyon: Since that time, however, substantial issues have been removed from the case and the defendant estimates that the defendant's case will take one day. We can't see how the case would take over——

The Court: Well, I will try the issue of validity, first. How long will that take?

Mr. Subkow: The issue of validity?

The Court: Nothing but validity.

Mr. Subkow: I understand. I think that will not take more than a day or a day and a half. I suppose, including [A]* cross examination—well, the difficulty would be——

The Court: We won't have much cross examination. We'll dispense with cross examination.

* Page numbers appearing at top of page of Reporter's Transcript of Proceedings.

Mr. Subkow: I think I will read then only a portion of some depositions. I believe that that would be about right, a day or a day and a half.

The Court: Very well. Mark it ready.

Do you have something else you want to say at this time, Mr. Lyon?

Mr. Lyon: If we are proceeding, I wish to introduce associate counsel from Boston.

The Court: You may.

Mr. Lyon: If the court please, I would like at this time to introduce and move that they be recognized for the trial of this case Herbert P. Kenway, in the center; Mr. George W. Crowley at the end of the table; and Mr. Kenneth W. Brown, of the Bar of the State of Massachusetts in the Federal courts there. And I ask that they be recognized for the purpose of this case.

The Court: They will be admitted specially for the purpose of this case.

Mr. Lyon: And before there is any further chance for delay in calling the fact to Mr. Subkow's attention—though it has been called to his attention before—working here as we did, with me taking the laboring oar here in Los Angeles [B] but these gentlemen being in Boston and our witnesses coming from Pampa, Texas, an error crept into the admissions of fact, and I would like at this time, if the court please, to move——

The Court: Well, I haven't finished calling the calendar yet.

Mr. Lyon: Excuse me. I will sit down.

The Court: Proceed with the call, Mr. Clerk.

(Other court matters.)

The Court: You may proceed in Moon against Cabot Shops.

Mr. Lyon: As I was saying, your Honor, an error crept into the admissions, and it got there because of the fact that we were working at 3,000 mile legs of the triangle, and in plaintiff's pretrial statement of the case there is a statement, 49(a), which is just simply not true according to the facts as we receive them from our witness, and we would like to be relieved of having agreed to that.

The Court: Which document is it, Mr. Lyon?

Mr. Lyon: It's stated in Plaintiff's Pretrial Statement, and it is agreed to——

The Court: Filed what time?

Mr. Lyon: In the pretrial conference order. It's about the next to the last document in the file.

Mr. Subkow: I can give you the date, your Honor.

The Court: What page is it of the order? [C]

Mr. Subkow: Item III of the order, your Honor.

Mr. Lyon: It is Item III of the pretrial conference order, and page 12 at the bottom, and the top of page 13 of Plaintiff's Pretrial Statement of Facts. It is very short.

The Court: Just a minute. I don't find any such pages in my copy.

Mr. Subkow: The top of page 4 of the Pretrial Conference Order refers to certain statements in the Pretrial Statement of Facts and incorporates them by reference. The Pretrial Statement of Facts is

dated February 26, 1958. The item referred to is 49(a) appearing on page 12.

The Court: What's erroneous about it? 49(a)?

Mr. Lyon: That's right, your Honor.

The Court: I don't see any 49(a).

Mr. Subkow: The bottom of page 12 of the pre-trial statement, Plaintiff's Pretrial Statement of Facts filed February 26, 1958.

The Court: Where is it referred to in the Pre-trial Conference Order?

Mr. Lyon: Page 4, your Honor, line 4.

The Court: Item what?

Mr. Subkow: Item 15—Item 12 of III.

Mr. Lyon: 49 and all its subdivisions. That is a list.

The Court: You are referring now to one of the subdivisions, 49(a), is that it? [D]

Mr. Lyon: Right.

The Court: That comes from Plaintiff's Pretrial Statement of Facts filed February 26, 1958, page——

Mr. Subkow: Page 12, Item 49(a) at the bottom of the page.

The Court: "By 1949, the problem of the illegality of the back-in units became so acute that they were forced by competition from Waldrip to attempt to design a legal unit."

Mr. Lyon: That, we understand from our man, is simply not true. Waldrip only made seven units all told in its entire existence. So they weren't forced by Waldrip to do anything.

The Court: Is there any objection to relieving the defendant of that admission?

Mr. Subkow: Yes, sir, we certainly object. We don't think that it is, in truth. The defendants state that only six or seven were made of the Waldrip, but he forgets that only 16 were made by the defendant. So the disparity isn't so tremendous. And the fact that they may have been forced by that competition may still be a fact. And we have relied on these admissions in preparing our case. The pre-trial order was filed on the 26th.

The Court: Very well. I will deny the motion at this time, subject to your right to renew it later in the trial [E] if you are so advised.

I don't feel familiar enough with this case at the present moment to rule intelligently on your request.

Mr. Lyon: Your Honor, I don't want to find myself in the position, or have my associate counsel in a position of going contrary to the court's order, but the witnesses are here and would testify, if so permitted, that that is not a fact. Are we precluded from putting that evidence on?

Mr. Subkow: Your Honor, we will object as to being impeachment.

The Court: I don't know why that would be material or relevant to the issue of validity.

Mr. Lyon: Well, we will cross that bridge when we come to it.

The Court: I don't see how it would affect that, the matter of what the intentions of the alleged in-

fringer are, good or bad, as I view it. If the patent is invalid it escapes, doesn't it?

Mr. Lyon: That is correct. Of course, Mr. Subkow tried to use that admission as some sort of recognition of this patent, the validity of this patent, which we don't think is proper.

The Court: I doubt that that would serve any consequence.

You may proceed, Mr. Subkow.

Mr. Subkow: Your Honor has had this matter before you [F] on motion for summary judgment and pretrial and perhaps is sufficiently familiar with the general situation to not require any extensive preliminary statement by myself. Unless your Honor desires opening statements.

The Court: I remember it very well. I just wish my memory right now was as good as it was a few months ago, Mr. Subkow. But it will all come back to me. I haven't had a chance to read the file yet. I thought Judge Reeves would try this case so I didn't——

Mr. Subkow: I understand, your Honor.

As a preliminary matter, we have here a certified copy of the patent which we will offer as Exhibit No. 1.

The Court: Received in evidence.

(The exhibit referred to, marked Plaintiff's Exhibit 1, was received in evidence.)

[See Book of Exhibits.]

Mr. Subkow: We have here for the court's convenience a tabular analysis of the claim, quite similar to the one that was presented on the motion for

summary judgment. It might be helpful, and we offer it either as an exhibit or for identification, whichever the court desires, 1-A.

Mr. Lyon: Do we have a copy of that?

Mr. Subkow: Yes.

The Court: If there is no objection, I will receive it in evidence. It's merely another way of presenting part of Exhibit 1. [G]

Mr. Subkow: Yes. I thought it might save the court some time.

Mr. Kenway: No objection.

The Court: Received in evidence.

(The exhibit referred to, marked Plaintiff's Exhibit 1-A, was received in evidence.)

[See Book of Exhibits.]

Mr. Subkow: At this time, preliminary to introduction of further evidence, I want to put into the record some admissions of the defendants to preclude introduction of evidence. And I am reading from the facts admitted in the Pretrial Conference Order, Item III, paragraph numbered 1, reading as follows:

"United States Letters Patent 2,671,537 was issued to James Moon on March 9, 1954, as assignor to Western Oil Tool & Engineering Co., Inc., a California corporation, as assignee.

"2. Said James Moon is a plaintiff in this action and is also named Cleon James Moon, and the allegations of Paragraph I of the Complaint are true

* * *

Your Honor, I might interrupt to say that Mr. Moon was baptised as Cleon James Moon and has

been using the name James; although I feel that the name "Cleon" has a very literary and important meaning. I would not myself avoid it, if it had been given to myself. But he is shown as [H] "James Moon" throughout the record and has always used it that way.

"3. Plaintiffs are jointly the owners of said patent and that, except as stated in the following, the allegations of Paragraph II of the Complaint are true, except that defendants do not admit, but instead deny, that said patent was either duly or legally issued.

"4. Plaintiffs by assignment in writing from Western Oil Tool & Engineering Co., Inc. have all of said corporation's right to collect damages for past infringement of said patent * * *"

And I offer here, for the purposes of the record, certified copies of the assignment, as I thought I had there. But I don't have the original.

May I ask defendants whether I gave them the certified copy of the assignment in their file?

Mr. Lyon: I think you gave it to the clerk.

Mr. Subkow: Yes. I am sorry. Of course. We handed our exhibits to the clerk. I am using my own. Please excuse me.

The exhibits are as follows: Exhibit No. 3 is the Assignment from Western Oil Tool & Engineering Co., Inc. to James Moon and Edmond Wagner.

Exhibit 4 is an assignment from James Moon and Edmond [I] Wagner to Philip Subkow.

Exhibit 5 is a confirmation of assignment of rights and of recovery under patent 2,671,537.

Exhibit No. 6 is the confirmation of assignment of right and recovery under patent 2,671,537 to Philip Subkow.

And Exhibit No. 7 is the assignment of additional right by James Moon and Edmond Wagner to Philip Subkow.

I offer these as Exhibits 3 to 7, seriatim.

The Court: Any objection?

Mr. Kenway: No objection.

The Court: Does the pretrial conference order cover the concession as to the due execution of all of these documents?

Mr. Subkow: No. These are certified copies. They were pleaded in the record. They were not denied. And admission of ownership was, in my view, sufficient.

Do I understand that the defendants will admit the due execution and genuineness of these assignments?

Mr. Kenway: We do.

The Court: Very well. Exhibits 3 to 7 are received in evidence.

(The exhibits referred to marked Plaintiff's Exhibits 3 to 7, were received in evidence.)

The Court: The clerk tells me that you have omitted Exhibit 2.

Mr. Subkow: That is the assignment from James Moon to [J] Western Oil Tool & Engineering Co. I thought I had mentioned that. That is included in the group and is included in the stipulation, I believe. I understand defendants so admit.

(The exhibit referred to, marked Plaintiff's Exhibit 2, was received in evidence.)

Mr. Subkow: I will now read some further admissions of preliminary nature.

Item 5 of the same section of the Pretrial Conference Order reads as follows:

"5. Plaintiffs did prior to December 27, 1957, notify defendant Howard Supply Company of their said alleged infringement of said patent, to wit, on or about November 8, 1956, and did notify defendant Cabot Shops, Inc., on August 17, 1955, and again on April 24, 1956, by letter in writing."

And continuing with paragraph 6 of the same section of the Pretrial Conference Order, it reads as follows:

"6. Franks Manufacturing Corporation was prior to the fifth day of April 1955 an Oklahoma corporation and had its principal offices at Tulsa, Oklahoma, and a legal and established place of business in the Southern District of California from and after March 9, 1954 until said fifth day of April, 1955."

And continuing, reading from the same section of the [K] same pretrial order, Item 7 reads as follows:

"7. On or about said 5th day of April 1955 said Franks Manufacturing Corporation did merge with the Cabot Shops, Inc., a Massachusetts Corporation, and that the merged corporations, the defendant in the herein action, has continued the business of said Franks Manufacturing Corporation, through the Franks Division of said Cabot Shops, Inc., and has

maintained since said 5th day of April, 1955 and does now maintain a regular and established place of business in Tulsa, Oklahoma and in Los Angeles County, State of California, within said Southern District of California.

“* * * 9. Defendant has acquired all the liabilities of said Franks Manufacturing Corporation, an Oklahoma corporation * * *”

May I ask the defendants whether they will stipulate that the word “defendant” refers to Defendant Cabot Shops, Inc.?

Mr. Kenway: So stipulated.

Mr. Subkow: “10. Defendant does not claim any ownership or any part of the right, title and interest in or to said Letters Patent 2,671,537, or in or to the inventions and discovery secured thereby, nor any shop right, or any other right or license thereunder or thereto * * *” [L]

May I ask the defendants whether they will stipulate that the word “defendant” in that statement refers to the defendant Cabot Shops, Inc.?

Mr. Kenway: Agreed.

Mr. Subkow: The answer to Interrogatory No. XX served on March 20, 1958, is as follows: And I will read that into the record.

“Interrogatory No. XX.

“State in what respect defendant claims that the Patent No. 2,671,537 was not either duly or legally issued, as alleged in Paragraph 2 of Defendants’ Answer.

“Answer:

“Further answering Interrogatory No. XX, de-

endants' contentions are set forth in the pretrial conference order."

I will now read from the pretrial conference order, paragraph VIII, as follows:

"The following issues of law, and no others, remain to be litigated upon the trial:

"1. (a) Was the invention, claimed in the claims of the patent in suit, patented or described in any printed publication, cited by defendant Cabot Shops, Inc. in its answer to Plaintiff's Interrogatories, before the invention thereof by James Moon?" [M]

The answer to that interrogatory—no. I am sorry. That is the statement.

"(b) Was the invention patented or described in a printed publication in this country, cited by said Defendant in its answer to Plaintiff's Interrogatories, more than one year prior to the filing of the application for the patent in suit?

"2. If the invention of the patent in suit is not identically disclosed in any of the aforesaid patents and patent publications, as referred to in paragraph 1, subparagraphs (a) and (b) above, is the difference between the subject matter sought to be patented by said patent and the said patents and publications such that the subject matter as a whole would have been obvious at the time the invention was made to persons having ordinary skill in the art to which said subject matter pertains? * * *

Items 3 and 4 relate to infringement. They are short, so I may read them.

"3. Does the equipment as illustrated in the 1956

Catalog of Defendant Cabot Shops, Inc., at page 1810 and in the 1957 Catalog at pages 1883, 1884 and 1885, and manufactured and sold by said defendant and its predecessor, Franks Manufacturing Corporation, constitute an infringement of the claims of the patent [N] in suit?

“4. Has the defendant Howard Supply Company infringed the patent in suit by sale of any of the foregoing equipment?”

I may pause at this point, your Honor, to say that I have been approached by defendants with the suggestion that there has been some error in the admission in the pretrial order that the Howard Supply Company had actually joined in the sale which is accused here; and we do not want to be placed in the position of putting the Howard Supply Company to the trouble of litigating this lawsuit if in fact they are an innocent party. And the problem is one, however, of procedure as to how to get the Howard Supply Company out of this litigation without prejudicing any of our rights. And perhaps defendants would at this time——

The Court: Can't you stipulate to a dismissal of them, without prejudice?

Mr. Subkow: The point is, your Honor, it's an extraordinary thing. We can do that, but my research indicates that you can't dismiss as to one of the parties, but you have to dismiss the whole action.

The Court: You mean because they are joint tortfeasors?

Mr. Subkow: Joint, yes, sir. And furthermore, if they are—— [O]

The Court: Couldn't you bring a covenant not to sue them under this recent California Supreme Court decision?

Mr. Subkow: Or proceed by a dismissal under the misjoinder provision of the thing.

I just don't want to be placed in the position of dismissing a joint tort feisor and find that I am out of court. So I would like a little more time to think this thing through. And I suggest that the point won't really arise until the infringement part of the thing arises. It may be delayed until that time.

The Court: Very well. But counsel for Cabot Shops appears for all of the defendants, I take it.

Mr. Kenway: Yes, your Honor. I might say, also, that Cabot Shops has indemnified Howard Supply Company, and Howard Supply Company is selling our product, and would continue to do so.

I think technically they haven't participated in the sale of the accused structure. But I have no objection to their remaining in the case.

Mr. Subkow: If that were the case, then the record is imperfect. I must say that defendants have co-operated excellently with us, and I believe there has been good relationships on that score, and I want to extend my thanks to that. I have tried to do the same.

The Court: Well, I am sure that both sides have co-operated. [P]

Mr. Subkow: But the difficulty is, your Honor, that the procedure that we were going to follow was

that the Howard Supply Company failed to answer some interrogatories and they were ordered by your Honor to answer them, and they have answered only a portion of the interrogatories. We had agreed that they could adopt the answers of the Howard Supply Company by stipulation; but in view of the possibility that they would be dropped from the case, we haven't proceeded with that stipulation, and the record, as it stands now, we have no answer by the Howard Supply Company.

So, can we hold that in abeyance until the time comes?

The Court: You may.

Mr. Subkow: And if it is decided that the Howard Supply Company shall remain here, may it be stipulated that that stipulation will apply nunc pro tunc to any other admissions that have been made and introduced in evidence beforehand as against the Cabot Shops?

Mr. Lyon: Well, there is a written stipulation which I prepared and showed to you, and didn't sign, and you didn't sign it. It's sitting on my desk right now if you want it. I might send my secretary down and get it.

Mr. Subkow: Oh, no. I am making no point of it except that I would like to see a tidy record.

The Court: Will it be here? [Q]

Mr. Lyon: It will be here this afternoon.

The Court: Very well.

Now, do you have an extra copy of the patent in suit that I can mark up?

Mr. Subkow: Yes, we have one for you.

(Whereupon the document was handed to the court.) [R]

Mr. Subkow: You know, there must be some devil in exhibits. No matter how long you handle them, you always find something is misplaced, or something is wrong.

The Court: When you have so many of them, that often happens. I have it now, and I was going to use it in connection with the other exhibit,—

Mr. Subkow: We provided one, I know.

The Court: —Exhibit 1-A.

Mr. Subkow: Yes. May I continue with the reading of the preliminary matters?

The Court: You may.

Mr. Subkow: I wish now to read an answer by the defendants, Cabot Shops, Inc., which was served on me on February 21, 1958, to plaintiff's interrogatories, Interrogatory No. XXI. I am waiting until you find it. I have excerpted it and put it in my book that way. It is Interrogatory XI of the Interrogatories which were served on me on February 21, 1958, and let me say, it is the first set of answers.

I will read now:

“XXI. State the date upon which it is alleged by defendants in Paragraph 5 of their Answer that the invention, identified by defendant as the ‘alleged invention’ in said Paragraph 5, was made and state if defendant will rely on evidences other [S] than those referred to in Paragraphs 6 and 7 of the Answer to show the state of the art and, if so, state of what such evidences consist.

“Answer: Defendant is presently without independent knowledge as to the date of the making of the alleged invention by the plaintiff Moon. Defendant will not rely upon evidence as to the prior art other than patents and publications previously called to the attention of plaintiffs except for Waldrup advertisements appearing in journals and publications in 1946 and 1947.”

May I ask the defendants’ counsel whether they will stipulate that “in 1946” is stated in error in that answer?

Mr. Kenway: Yes, that answer should be confined to the year 1947.

Mr. Subkow: I will now read the answer to the same interrogatories as to Interrogatories XXII and XXIII, which were served on me on March 20, 1958, in conformance with the order of your Honor, as follows:—

Interrogatory No. XXII reads as follows, and I have previously read Interrogatory XXI to your Honor:

“State what part or parts of the invention or improvement referred to in Paragraph 5 of the Answer does not embody substantial variations of changes from that which belong to the state of the art as [T] it existed at the time of the alleged inventions thereof, as alleged in Paragraph 5 of Defendants’ Answer.”

Interrogatory No. XXIII reads:

“Give the name, date, title and pages of the publications referred to in Paragraph 6 of the Defendants’ Answer.”

The answer to Interrogatories XXI, XXII and XXIII is as follows:

"Further answering Interrogatories XXI, XXII and XXIII, the evidence to be relied upon by defendant, Cabot Shops, Inc., as to prior art will consist of the patents and publications, copies of which appear in connection with Exhibits M, N, O, P, Q, R, S and T. Defendants accept December 16, 1946 as the date upon which Mr. James Moon made the alleged invention of the patent in suit."

May I ask defendants whether they will stipulate that this last sentence is an admission by them, and that they will waive all further proof of the date, that the date of the invention is December 12, 1946. I understand that "16" was an inadvertence.

Mr. Kenway: Of course, we deny that any invention ever was made, but if you want to pick December 12th as the date of that, I am happy with that.

Mr. Subkow: Then I understand that if there is an invention here, they will agree and will waive all further proof of the fact that it was made on December 12, 1946; is that correct?

Mr. Kenway: Yes, sir.

The Court: December 12, 1946.

Mr. Subkow: Now, your Honor, the answer to the interrogatory is uncertain, in that it refers to certain exhibits. These exhibits have not yet been introduced in evidence, and I have been assured by—well, I will ask defendants' counsel if they will now identify for the record the items which they refer to as Exhibits M, N, O, P, Q, R, S and T, and I may say that in asking that I am not sponsoring

and not introducing them into evidence, but merely to identify them so that the answer may be definite and certain.

May they be so received with such a limitation, your Honor?

The Court: Any objection?

Mr. Kenway: No. The clerk has the exhibits, your Honor.

Mr. Subkow: You see, I am not offering them as a piece of evidence in the record, but merely in explanation of the interrogatory. I am not sponsoring these pieces of evidence.

The Court: Are they identified in the interrogatory?

Mr. Subkow: Only by number and letters, without stating [V] what they are.

If your Honor will turn to the interrogatories served on March 20th, that is the last paper, and I don't know that it has even been entered into the file. May I inquire of the clerk whether he has that document?

The Court: The interrogatories filed March 20th?

Mr. Subkow: Yes, sir.

The Court: I don't seem to have a copy.

Mr. Subkow: I know. They were loose when I saw them last.

Mr. Lyon: I think the best way to solve your problem is to mark as exhibits for identification the things that we will rely upon as constituting the material you are making inquiry about. Will that be acceptable?

Mr. Subkow: Yes.

The Court: Aren't they referred to in the interrogatories themselves?

Mr. Subkow: No, sir, they are not. In the interrogatories they are referred to in just exactly the way I read it by reference to exhibit numbers for identification which the defendant proposes to apply to them when he offers them in evidence.

The Court: Have any exhibits been marked on behalf of the defendants?

Mr. Lyon: All of them. [W]

The Court: Have these that you refer to now been marked?

Mr. Lyon: They have been marked, but the clerk has not put his initials on them.

The Court: Can't we refer to them by stipulation, and stipulate that the documents referred to in the interrogatories are exhibits so and so and so and so?

Mr. Subkow: Yes, sir, provided there is no implication that we are offering them on behalf of the plaintiff.

The Court: You are offering the interrogatory. This is a part of the answer, is it?

Mr. Subkow: No, this is a part of the answer to the interrogatory.

The Court: Yes. You are offering the answer, is that it?

Mr. Subkow: Yes, but not the exhibits.

The Court: You are offering the exhibits to make the answer intelligible?

Mr. Subkow: That is right, but we are not spon-

soring them in evidence, and we will object to their introduction as exhibits.

The Court: Can you state a stipulation on the record of what documents you are now referring to?

Mr. Subkow: I must have the documents before I can do so. [X]

The Court: Certainly. The clerk will hand them to you. I assume those are the documents?

Mr. Subkow: I assume so, too. There is no question because——

The Court: Offer a stipulation that exhibits so and so and so and so, for identification, are the exhibits referred to in the answer to interrogatories so and so.

Mr. Subkow: I accept your Honor's suggestion.

The Court: I can't fill in the information. You will have to fill it in. We are taking a lot of time, it seems to me, on something that should be straightened out without much difficulty.

Mr. Subkow: It would have been simple had they listed them in the——

The Court: I am not implying blame to anyone. Will you state the stipulation?

Mr. Subkow: Yes, your Honor. I am prepared to do so immediately.

The Court: Proceed.

Mr. Subkow: All right. May it be stipulated that Exhibit M referred to in the answer to Interrogatory XXIII is the print from the "Oil Weekly" of May 5, 1947?

Mr. Lyon: So stipulated.

Mr. Subkow: That the Exhibit N referred to in

the Interrogatory XXIII is the print from the "Oil & Gas Journal" [Y] of May 10, 1947.

Mr. Lyon: So stipulated.

Mr. Subkow: That Exhibit O is the "Petroleum Engineer" of June 1947.

Mr. Lyon: Page 192. So stipulated.

Mr. Subkow: I don't understand. Exhibit O here is a volume.

Mr. Lyon: 192 is the pertinent page.

The Court: Page 192 of Exhibit O is the document referred to, as I understand it; is that right?

Mr. Lyon: Right.

Mr. Subkow: Exhibit P is May, 1947. Is only page 234 referred to?

Mr. Lyon: Page 234 is the pertinent page.

Mr. Subkow: I don't understand, your Honor. What is the exhibit? Is it the book itself?

The Court: The exhibit will be the document, I suppose.

Mr. Subkow: But is it the page, or is it the book?

The Court: It is only for identification, but what is referred to in the interrogatory, I take it, is the page. Is that correct?

Mr. Subkow: That is what I would like to know.

Mr. Lyon: Well, the cover page shows the date. We will offer the whole book, and call the court's attention to page 234. [Z]

The Court: The book itself will be the exhibit, and the page referred to is the page specified. Anything further on that?

Mr. Subkow: Q is the "Petroleum Engineer" of April, 1947.

Mr. Lyon: All we are interested in in that one is the cover.

Mr. Subkow: Then it is the cover which is the exhibit. Now, then there are R, S and T.

The Court: These have not been marked in evidence as yet.

Mr. Subkow: That is the point.

The Court: You are only speaking of them for purposes of identification——

Mr. Subkow: That is right.

The Court: ——to render intelligible the answers to the interrogatories, as I understand it.

Mr. Subkow: Yes. R is a print from "Oil" of 4-24-47, and S is a book of exhibits.

May I ask the defendants whether S represents a book of patents, each of which are referred to at the back of the printed copy of the patent in suit?

Mr. Kenway: No, sir.

Mr. Subkow: What are they?

Mr. Kenway: S is prior art patents, and it happens that [AA] none of them appear on the patent. You are referring to Exhibit T, Mr. Subkow, and that is the patents which are referred to at the end.

Mr. Subkow: There is a confusion in the record. If you will look at it, you will see that the record is such.

Mr. Kenway: I think the tags were reversed when they were put on the book, and what is S should be T-1, and vice versa.

(Thereupon the tags were changed by the clerk, so as to correctly reflect the record.)

Mr. Subkow: Your Honor, we have a list of their patents submitted to us. We have never seen the book before. May I have just a minute to glance through the book, and check it against my list?

The Court: Yes.

Mr. Subkow: May I do that later on, and ask for a stipulation to that effect?

The Court: Yes, you may pass it now, subject to check later, if you so desire.

Mr. Subkow: Yes, that will be fine.

May I ask, then, is Exhibit S a book containing only each of the patents listed on the back of the printed copy, Exhibit 1?

Mr. Kenway: No, that is Exhibit T-1.

Mr. Subkow: Oh, you have now changed it, but you haven't changed it up here. [BB]

Mr. Kenway: Exhibit S is a book containing the patents that are listed in the answers to the interrogatories at the end under the title, Exhibit 16.

Mr. Subkow: We have it. There is an answer to Interrogatory XXIV—let's take up S first. S is the list of patents which is contained in the answer to the interrogatory XXIV, served February 21, 1958; is that correct?

Mr. Kenway: Yes.

Mr. Subkow: And T is a book containing patents which are listed on the back of the printed patent, Exhibit 1; is that correct?

Mr. Lyon: That is T-1.

Mr. Subkow: Let's erase that, then.

Now, this is the last of my reading to the court before putting on witnesses. Interrogatory XXIV:

“Give the numbers, dates and country issuing each of the patents referred to in Paragraph 6 of said Answer, which defendants will urge at the trial best disclose the material elements and combinations of elements as alleged in said Paragraph 6.

“Answer: Further answering Interrogatory XXIV”—This is in the answer served March 20, 1958, and the answer reads as follows:

“Further answering Interrogatory XXIV, defendants are currently of the opinion that the patents to Martin [CC] and Evans, copies of which appear in Exhibit S, are the best patent references.”

I believe that “Martin” is a misprint, and it must have meant Morton in Exhibit S.

Mr. Kenway: So stipulated. The patent intended is Morton 966,345 of August 2, 1910.

Mr. Subkow: The answer to the Interrogatory XXIV, served February 21, 1958, is as follows:

“Give the numbers, dates and country issuing each of the patents referred to in Paragraph 6 of said Answer, which defendants will urge at the trial best disclose the material elements and combinations of elements as alleged in said Paragraph 6.”

This was an answer to an interrogatory previous to the previous answer, to which an objection was made, and may we stipulate that the list given in that answer lists the patents in Defendants’ Exhibit S, for identification?

Mr. Kenway: Agreed.

Mr. Subkow: One more admission. This is an admission from the pretrial conference order, Item III, 11.

The Court: When you speak of III, you are speaking of paragraph——

Mr. Subkow: Roman III, your Honor.

The Court: ——Roman III, Arabic 11 thereof, is that it? [DD]

Mr. Subkow: Yes. May I just check that? My notes just missed that point.

The Court: Is that the one that starts, “Mr. Wayland B. Woody”?

Mr. Subkow: That is the one, sir:

“Mr. Wayland B. Woody gave and duly executed his deposition in Tulsa, Oklahoma, in June 1957 when called by plaintiffs and also at the same place and time gave a separate deposition for defendants upon stipulation; both said depositions are bound in one volume and on file in this court; and said Wayland B. Woody, prior to aforesaid merger, was an officer of said Franks Manufacturing Corporation and since said merger has been at all times and now is a managing agent of defendant.”

The Court: Does that complete the references at this time to the pretrial conference order?

Mr. Subkow: At this moment, except to make one correction with regard to Interrogatory XXI.

The reference in the Interrogatory is to Exhibit T. We have been referring to Exhibit T-1. T is the certified copy of the file wrapper. May it

be stipulated that the reference to T-1 also includes reference to T?

Mr. Kenway: We do.

The Court: So stipulated, gentlemen? [EE]

Mr. Kenway: So stipulated.

The Court: I notice on page 1 of the pretrial conference order, line 23,—

Mr. Subkow: If your Honor please, I will find it.

The Court: There is the word "Complaint" which appears, and it should be "Answer." "a Complaint served March 29, 1957, which Answer"—

Mr. Subkow: May I have that point again, sir?

The Court: Between lines 23 and 24—

Mr. Subkow: Yes, sir.

The Court: —on page 1, line 22, it refers to a Complaint filed on a certain date, as amended by stipulation and answer, "and a Complaint"—that means "Answer," doesn't it?

Mr. Subkow: Oh, yes, sir. May it be so stipulated?

Mr. Kenway: So stipulated.

The Court: Mr. Clerk, will you find the original pretrial conference order filed March 3rd, and I will make the correction.

Mr. Subkow: Thank you, your Honor.

The Court: Do you wish to offer in evidence the order?

Mr. Subkow: I will offer it.

The Court: Proceed, Mr. Subkow.

Mr. Subkow: Your Honor, it was my intention to offer certain portions of the order and stipulations in the course [FF] of the examination where

that fitted best and where the relationship to the evidence could be most clearly observed.

The Court: Perhaps when you finish, you might want to offer the entire document?

Mr. Subkow: I thought that would be a smoother presentation.

The Court: It would probably make a better reading record.

Mr. Subkow: Yes, sir.

The Court: Very well. You may proceed in your own way. [GG]

Mr. Subkow: Now, in view of certain admissions in the record much evidence will not be necessary, and I will read those portions of the admissions which now follow, and will put on the witness when the time comes for proof. In the course of that examination I will wish to read admissions to preclude further examination to save time. And I will ask permission to do so. I understand I have that permission.

The Court: Yes.

Mr. Subkow: I will now read from Plaintiff's Pretrial Statement of Facts which are admitted true and the Pretrial Conference Order, Item III, paragraph 12, and I am reading—this appears on page 2, at the top of page 2.

The Court: Of Plaintiff's Pretrial Statement of Facts?

Mr. Subkow: No, sir, of the Pretrial Conference Order, sir.

Mr. Lyon: You read that.

The Court: When you call it Item III, para-

graph 12, you mean paragraph Roman three, sub-item 12.

Mr. Subkow: Forgive me, your Honor. My record is more perfect than my memory. I read it correctly.

The Court: Very well.

Mr. Subkow: May I start all over again?

The Court: You may.

Mr. Subkow: I am reading from Plaintiff's Pretrial Statement of Facts which are admitted true in the Pretrial [HH] Conference under Item III 12. I am reading the item subparagraph 2, which appears as admitted at the top of page 4 of the Pretrial Conference Order. I am reading the statement from the Plaintiff's Pretrial Statement of Facts.

The Court: Paragraph 2.

Mr. Subkow: Paragraph 2.

Your Honor, I would be less long-winded—I am afraid I am too long-winded now—if instead of keeping repeating if I could say “admitted statements,” or some tag that would be understood to mean the same thing.

The Court: You mean referring to the——

Mr. Subkow: To the admissions which are made in the Pretrial Conference Order.

The Court: Yes. I should think that would be sufficient, to refer to the—state it as admitted in the Pretrial Conference Order and read it.

Mr. Subkow: Something is said of identifying it.

The Court: If the defendants want to challenge it, why, let them specify.

Mr. Subkow: That would simplify it.

I am reading paragraph 2, subparagraph (a):

“Prior to 1948, portable derricks employed for servicing and drilling oil wells of the telescopic lattice or trussed four-legged type, were of the back-in type. [II]

“(b) These are so called because a derrick was transported and mounted on the vehicle so that it was hinged at the back end of the vehicle. The driver and the engine were positioned at the front end of the vehicle. The vehicle had to be backed into the location in order to erect the derrick.”

Admitted Item No. 13, from the Statement of Facts reads as follows:

“(a) The portable telescopic truss-type derricks of the back-in kind were substituted for permanent derricks previously employed in many instances
* * *

I have some exhibits, Exhibits 8, 9, 10, 11, 12 and 13. I will refer to these exhibits in connection with the witness, but I thought that at this time your Honor might like to look at pictures of this back-in type in this connection; and I believe that all of these are——

The Court: Didn't I see those in the record on the motion?

Mr. Subkow: No. These are different exhibits and show various features of it.

The Court: Very well.

Mr. Subkow: I thought it might be helpful.

The Court: These are the earlier type.

Mr. Subkow: Yes, sir. These are the back-in type before 1948, I believe. If the defendants will

stipulate that these may go in evidence, your Honor may look at them. [JJ]

The Court: That's 8, 9, 10, 11——

Mr. Subkow: 11, 12 and 13. Does your Honor have a list of our exhibits?

The Court: Yes. It is part of the pretrial order. I have it before me.

Mr. Subkow: They have been modified. As a result of all these admissions I have cut out a lot of exhibits. So, may I give you a new exhibit list?

The Court: Yes, I would be glad to have it. I have the list, of course, which is a part of the Pretrial Conference Order.

(Whereupon the document was given to the Court.)

Mr. Subkow: Let me explain, your Honor, that we have a list of exhibits with former identification in the pretrial order tabulated, and we have also, since we are going to have a deposition, prepared a document tabulating the deposition exhibit number and the corresponding number which we have in our list in order to simplify cross referencing.

The Court: Yes. I have it.

Mr. Subkow: The format, I believe, will be obvious.

The Court: Very well.

Mr. Subkow: The clerk tells me that there are some exhibits missing. What is the one that you can't find?

The Clerk: 10, 11,——

Mr. Subkow: No. 10 is the White patent. I have an [KK] extra one for you.

What is the other one?

The Clerk: No. 11.

Mr. Subkow: That is the Woody patent. You haven't got that?

The Clerk: And No. 12.

Mr. Subkow: What's 12?

You haven't got a picture of this?

The Court: A photograph of the Franks back-in unit.

Mr. Subkow: Yes. You should have them there.

Mr. Lyon: I don't have them either.

Mr. Subkow: They were given to you.

Well, let's not delay. Here are some more. You can have those. I will find some more later.

If the clerk finds them, may I have his, your Honor?

The Court: Yes. Perhaps you can straighten them out at the recess.

Mr. Subkow: Well, you have them because they are Woody exhibits.

Mr. Kenway: I see.

Mr. Subkow: We did not give the defendants copies of Exhibits that they already have.

The Court: Now, these are offered in evidence, trial Exhibit 9, 10——

Mr. Subkow: 8, 9, 10, 11, 12 and 13. [LL]

The Court: Is there any objection to them?

Mr. Kenway: Let me say this, your Honor, that I haven't seen them before; and some of these purport to be photographs of our unit. If I could consult with——

Mr. Subkow: Well, if there is any question, I

will offer them for identification and get them proofed up later.

Mr. Kenway: Well, if you will just give me a minute to ask my witness.

The Court: Very well. We will take the morning recess at this time for five minutes.

(Short recess.)

Mr. Kenway: During the recess I consulted Mr. Woody, who is chief engineer of the defendant division here, and he tells me that Exhibits 8, 9 and 13 are what you identify them to be, and we have no objection.

Mr. Subkow: What about the others?

The Court: 10, 11 and 12. 10 is the White patent. 11 is the Woody patent. And 12 is a photograph of the Franks back-in unit, side view.

Mr. Subkow: There can be no objection to the patents.

Mr. Kenway: Certainly not.

The Court: Then as I understand the offer, offered Exhibits 9, 10, 11, 12, 13, it's stipulated that they are genuine and in all respects what they purport to be and may be received in evidence. [MM]

Mr. Subkow: You omitted No. 8, your Honor.

The Court: Did I? I am sorry. Exhibit Nos. 8, 9, 10, 11, 12 and 13 are received in evidence.

(The exhibits referred to, marked Plaintiff's Exhibits 8, 9, 10, 11, 12 and 13, were received in evidence.)

[See Exhibits 10, 11 and 12 in Book of Exhibits.]

Mr. Subkow: Your Honor, in connection with

the next admission I should like permission to withdraw from the exhibits attached to the Woody deposition, Exhibit No. 42——

The Court: Do you have any other copy of it?

Mr. Subkow: We have been relying on the Woody deposition in the court as the court's copy, your Honor.

The Court: You don't have an extra copy?

Mr. Subkow: I would have to give you my own.

The Court: No. I wouldn't want that.

Mr. Subkow: We have one for the witness and one for ourselves. And I had hoped that your Honor could use the——

The Court: Yes. The Woody deposition, Exhibit No.——

Mr. Subkow: 42.

The Court: ——42.

Mr. Subkow: It's Exhibit No. 88 in the list of plaintiff's exhibits.

The Court: Trial Exhibit No. 88.

Mr. Subkow: Yes, your Honor.

The Court: Do you have it, Mr. Clerk?

The Clerk: Yes, I do, your Honor. [NN]

The Court: Is there any objection, gentlemen?

Mr. Kenway: No, your Honor.

The Court: What is the document? What is the nature of it?

Mr. Subkow: It's a—well, now, in my list I think it's a catalog.

The Court: It's a document of some kind, and it's stipulated to be genuine and in all respects what it purports to be, I take it; and Exhibit No. 42 of

the Woody deposition will be received in evidence as trial exhibit 88.

(The exhibit referred to, marked Plaintiff's Exhibit 88, was received in evidence.)

Mr. Subkow: Will you give me that Exhibit No. 88, and I will tell you what it is.

(Whereupon the exhibit was handed to counsel.)

Mr. Subkow: Exhibit No. 88 is a photograph.

The Court: 88 is a photograph?

Mr. Subkow: It's a photograph of a back-in unit. And I do have another photograph, and I had hoped to be able to use that with the witness, you see.

The Court: Very well. You may.

Mr. Clerk, may I see it, Exhibit 88?

(Whereupon the exhibit was handed to the court.)

Mr. Kenway: May I see it, too?

(Whereupon the exhibit was handed to counsel.) [OO]

The Court: Do you have the Woody deposition, Mr. Clerk?

The Clerk: Yes, I do, your Honor.

The Court: Well, that's what we want. It's Exhibit 42 of the deposition.

The Clerk: This is marked Exhibit No. 42. And these are the exhibits that were with the original deposition.

The Court: The clerk informs me—hold that up, Mr. Clerk—that the brochure there is marked Ex-

hibit 42 of the Woody deposition, as he understands it.

Mr. Subkow: That must be marked wrong, because the list of the exhibits at the front of the deposition, 42 is a Franks unit, November 8, 1938.

Let me see what it says in the deposition. I will get that straightened out immediately.

You are correct. The catalog is No. 42.

The Court: Is photograph 44 the one? It shows a derrick standing in place.

Mr. Subkow: Well, I will check that, your Honor.

The Court: Well, I can see that it isn't from the photograph you have here.

Mr. Subkow: Yes. It's a photograph.

The Court: 44 is a photograph.

Mr. Subkow: 43 is a photograph. And it is marked in evidence as 43. It may very well be that we are talking about No. 43. [PP]

At any rate, this is the exhibit. And may I give this photograph to you and correct it later? I mean, we are wasting time.

The Court: How do you wish it marked? We have said Exhibit No. 88.

Mr. Subkow: As Exhibit No. 88, your Honor.

The Court: Very well. The photograph is received in evidence and marked Exhibit No. 88.

(The exhibit referred to, marked Plaintiff's Exhibit 88, was received in evidence.)

The Court: You gentlemen would save a great deal of talk, whenever there is no objection to a photograph——

Mr. Kenway: No objection.

The Court: —I will assume that means that you stipulate that the document or photograph is genuine and in all respects what it purports to be; and if it is a letter that it was written and sent by the person purporting to sign it and to the addressee addressed and sent by regular mail and received in due course on or about the date it bears; and if it is a photograph that it fairly depicts what it purports to depict.

Is that agreed?

Mr. Kenway: Yes, your Honor.

Mr. Lyon: Yes, sir.

The Court: Very well. [QQ]

Mr. Subkow: May I have your authority to withdraw the copy that is in the record for my use in case another copy is found by the clerk?

The Court: Yes.

Mr. Subkow: I will now read the item in connection with which I have submitted the photograph. This is Item 14 from the Pretrial Statement of Facts, which is admitted true in the Pretrial Conference Order.

“14 (a) Defendants’ predecessor, Franks Manufacturing Co., manufactured and sold a telescopic truss-type back-in truck mounted derrick in 1939.

“(b) Previously it had built back-in derricks which were not telescopic and were designed for light service in which they used hydraulic jacks to erect the derrick.”

May I have a stipulation from the defendant that Exhibit 88 illustrates such a unit?

Mr. Kenway: There again you have me at a disadvantage. I have to check with Mr. Woody to make sure that was so. I have no quarrel with it. I just don't know, sir.

The Court: Can you do that now?

Mr. Kenway: I would be happy to, sir.

The Court: Very well.

Mr. Kenway: I understand this unit was built about [RR] 1945 or '46 by Franks.

The Court: You so stipulate?

Mr. Kenway: Yes, sir.

Mr. Subkow: No, sir, your Honor, I do not so stipulate. We will let the matter remain open until the deposition is read. It's my remembrance—well, I won't comment. May we pass that point?

The Court: Yes.

Mr. Subkow: With this comment, that my remembrance is not clear enough to make any statement at the present moment.

Mr. Kenway: May I say this, that we might shorten things up if Mr. Woody were permitted to sit at my elbow here, if that would be satisfactory.

The Court: Yes.

Mr. Subkow: No objection. May we have the same aid?

The Court: Yes, you may.

Mr. Subkow: Your Honor, my next point requires reading from the Woody deposition, but that would chop things up too much, so I suggest that I pass that and let that be filled in when I read the deposition.

I will now read the following agreed statement

of facts from Plaintiff's Pretrial Statement of Facts admitted true, Pretrial Conference Order, Item 16:

"One of the difficulties with the back-in units was that they did not comply with highway [SS] laws of the various states in that they could not be built so as to comply with:

"(a) The limitations of loading on the front or rear wheels; or with

"(b) The overhang requirements, or over-all height requirements.

"17. Additionally, the position of the derrick was such that the top of the derrick had to protrude in front of the vehicle for more than was allowable under the highway laws of many states."

I have now reached the point where I would like to swear a witness, your Honor.

The Court: Very well, you may.

Mr. Subkow: Mr. Moon, will you take the stand?

Tuesday, March 25, 1958; 9:30 a.m.

* * * * *

CLEON JAMES MOON

called as a witness on behalf of the plaintiff, being first sworn, was examined and testified as follows:

The Clerk: What is your name, please?

The Witness: Cleon James Moon.

The Clerk: How do you spell your first name?

The Witness: C-l-e-o-n.

Direct Examination

Q. (By Mr. Subkow): You are also known as James, are you not? A. Yes.

(Testimony of Cleon James Moon.)

Q. Are you a registered professional mechanical engineer of the State of California?

A. I am.

Q. What has been your experience in connection with the design of oil field equipment?

A. From 1938 until 1944 I was the design engineer for Franks Manufacturing Corporation.

From 1944 to 1945 I was the design engineer and chief engineer of Hillman-Kelly.

Q. What relation did Hillman-Kelly have with Franks [4] Manufacturing Corporation at that time?

A. Hillman-Kelly were the dealers for Franks' equipment in California.

Q. Continue.

A. From 1945 until the present I have been a consulting engineer in California. Additionally, I founded, in conjunction with Mr. Wagner, Western Oil Tool & Engineering Company, and developed a line of portable drilling and serving equipment for the oil industry.

I am currently the chief engineer of the Bender Oil operations and Bender Engineering & Manufacturing Company.

Q. What does Bender Engineering & Manufacturing Company manufacture?

A. They design and manufacture a line of portable drilling and servicing masts for the oil industry. [5]

Q. Are you a member of any professional associations?

(Testimony of Cleon James Moon.)

A. I belong to the American Petroleum Institute.

Mr. Kenway: Just a moment. If your Honor please, is the witness reading his answers?

The Witness: No, I am not. This happens to be a copy of the patent. I just happen to have it in my hand.

Mr. Kenway: Oh, I am sorry.

The Witness: I am a member of the American Petroleum Institute, and I am on the Mast Standardization Committee for API Standards 4-D.

Mr. Subkow: Is your Honor acquainted with the nature of the American Petroleum Institute?

The Court: I think generally.

Mr. Subkow: Perhaps we might——

The Court: You might let the record show.

Q. (By Mr. Subkow): Will you state what the American Petroleum Institute is?

A. The American Petroleum Institute is an industry sponsored organization created primarily for the standardization of tools used in the oil industry.

The Institute recommends that certain standards be followed, so that confusion will not result in the industry from having parts of one type of equipment, or in this case products mismatch with products of another section of the industry. [6]

A typical example is tool joints, where if the industry were allowed to run without standards, no two tool joints from separate companies would match.

(Testimony of Cleon James Moon.)

Q. Are there any features of safety or utility included in the considerations of the Committee?

A. In the case of the Committee a Code has been established.

Q. What Committee are you talking about now?

A. The Derrick Standards Committee.

Q. Are you a member of that Derrick Standards Committee?

A. Yes, I am a member of that Committee.

Q. How long have you been a member of that Committee?

A. Since about '45.

Q. Continue, please.

A. In the case of the Derrick Standards Committee a Code has been created.

Q. You haven't answered my question, Mr. Moon. Have you been a member of the Derrick Committee continuously since 1945?

A. I am sorry. Yes, I have.

Q. What is the function of the Committee?

A. The function of the Committee is to create a Code for the proper rating and safe rating of portable masts.

Q. Do they include the portable masts which are mounted upon vehicles to be transported to the site upon the vehicles, [7] and erected adjacent the vehicles, such as the back-in type?

A. Yes, they do.

Mr. Subkow: I wondered if there was any voir dire.

Mr. Kenway: No.

Mr. Subkow: Is the clerk motioning to me?

(Testimony of Cleon James Moon.)

The Clerk: No.

Q. (By Mr. Subkow): Mr. Moon, you have listened to the reading of the various statements into the record. May I ask you this—

Mr. Subkow: Your Honor, we have prepared a set of exhibits to be used by the witness. May we hand the set to him? It would save time in viewing the exhibits.

The Court: Yes, you may. The clerk will hand them to him.

(The documents referred to were handed to the witness.)

Q. (By Mr. Subkow): Mr. Moon, will you pick up Exhibits 8, 9, 10, 11, 12 and 13, please. One statement read into the record said, "Additionally"—and I am repeating it with your Honor's indulgence—"Additionally the position of the derrick was such that the top of the derrick had to protrude in front of the vehicle for more than was allowable under the highway laws of many states."

Will you turn to Exhibits 8 and 12, and did the derrick in any way interfere with the vision of the driver while he was driving that derrick over the road? [8]

A. There was an interference with upward vision as he was driving over the road, and this was important when he was passing under telephone lines and field power lines.

Q. Are you familiar with the unit that is shown in that photograph? A. Yes, I am.

Q. What is your familiarity?

(Testimony of Cleon James Moon.)

A. I took this photograph at Santa Maria, California, in the year—well, it was probably 1943. This is a Franks' double-drum telescoping vehicle mounted mast, truck-mounted mast, with a mast of about 96, or, 90 feet in height mounted on the truck. It was an FWD all wheel drive truck.

Q. What was your connection with that unit?

A. I laid out this unit as far as the outline design and mounting was concerned.

Q. For whom?

A. In California for Franks Manufacturing Corporation.

Q. Did you have anything to do with the sale of that unit?

A. Yes, I worked on the sale of this unit in conjunction with representatives of Hillman-Kelly. I erected it the first time in the field.

Q. In what respect did the limitation of the vision of the driver have any material importance?

A. The importance in the limitation of the vision of the driver concerned overhead power lines and telephone lines. It is common practice for field operators to provide their own power lines, and quite frequently these are not as high as a power company would provide them. Consequently some care has to be taken when the unit is driven around the lease roads.

Now, this unit is over 14 feet in height. In fact, with the crow's-nest around the top of the mast, as can be seen in the photograph, the height of that unit would be over 15 feet. [10]

(Testimony of Cleon James Moon.)

Q. (By Mr. Subkow): Would that introduce any problems with regard to clearance of bridges and overpasses?

A. Yes, it would. One unit like this actually jammed into the bridge over the Santa Ynez river at Buellton, California, because of its height.

Q. Couldn't the driver see that the unit would not pass underneath the bridge?

Mr. Kenway: I object. He wasn't there. That calls for speculation.

Mr. Subkow: I withdraw the question. It's technically imperfect, of course.

Q. (By Mr. Subkow): Were you present when that happened? A. I was present.

Q. Will you describe what occurred?

A. I was trailing the vehicle in a company car and was perhaps a block behind it. The driver was under the impression that he had sufficient clearance to clear the top stringers of the bridge. He did not get out and check it and, consequently, he did jam into the stringers of the bridge; although at a very, very slow speed.

Q. Do you ascribe his failure to the limitation in vision which occurred because of the overhang?

A. It was responsible for it in this case.

Mr. Subkow: May I ask the clerk to hand Exhibit No. 13 [11] to the court?

(Whereupon the exhibit was handed to the court.)

Q. (By Mr. Subkow): Will you state the purposes for which units of that kind are employed?

(Testimony of Cleon James Moon.)

Mr. Subkow: And by "that kind," I refer to the one shown in my missing exhibit. What is the number of that?

The Court: 13?

Mr. Subkow: The photograph of the unit.

The Court: Exhibit No. 13. That's the back-in unit.

Mr. Subkow: The back-in unit, the one that I lost. The one that got jammed in the overpass.

The Witness: This one?

Mr. Subkow: Yes. What exhibit number is that?

The Witness: This is Exhibit No. 12.

Mr. Subkow: Will you state the purposes for which units like Exhibit 12 are employed?

The Witness: Units like Exhibit 12 are used for the servicing of oil wells.

Your Honor, if I may explain, after an oil well has been drilled it is cased with a large diameter pipe called casing. It may be many thousands of feet long. Inside of that casing we run tubing to the production horizon. If the well does not flow, we also run a pump on the bottom of that tubing, and we run rods inside of the tubing to actuate the pump from the surface. So, there are, in effect, actually [12] three strings of pipe, or three strings of steel in the hole all the way from the surface.

Frequently, and particularly wells on the pump require bottom hole servicing. Sand may enter through the bottom of the well, or the pump may

(Testimony of Cleon James Moon.)

wear out, or the hole may be a little crooked and the rods will wear through the tubing and cause the tubing to leak. There are many things that can happen.

The Court: Is that what you call, sometimes, cleaning out the well?

The Witness: Yes, that's right. That's what you call cleaning out the well.

Prior to 1938 most oil fields were equipped with conventional and permanent derricks. This represented a considerable capital investment. Franks Manufacturing Corporation came out with this line of truck-mounted equipment to replace permanent derricks. And they were quite popular. In many areas permanent derricks have disappeared.

There is one oil field in Southern California where there are over 350 wells and not a single permanent derrick.

The Court: You take away the derricks even when the well is flowing?

The Witness: Yes.

The Court: In other words, this apparatus you are speaking about is designed to service wells that flow as well as [13] wells that pump.

The Witness: That's right. And it is of particular importance on wells that pump, because wells that pump require servicing more frequently than wells that flow.

So, the purpose of this equipment then was to replace the permanent derrick, and it did this by backing into location and erecting and extending

(Testimony of Cleon James Moon.)

the mast over the well site. It was then tied down, and the operation of pulling all the tubing out of the hole or rods, or both, as the case might be, was started. And the tubing rods were racked in the portable derrick or portable mast—and, incidentally, those two terms are interchangeable—they were racked in the portable derrick until they were all out of the holes.

The Court: Now, the power—what are they? What you call winches?

The Witness: Yes.

The Court: The power to pull the tube, pull the casing, is that mounted on the truck that carries the derrick?

The Witness: Yes, sir. It's mounted on the truck. And in this case there were two drums, one forward and one rear one. The rear drum carries a sand line which operates a swab or bailer.

Mr. Subkow: May I ask the witness to mark the parts of the exhibits to which he refers so the referencing [14] may be made. "This" or "that" gets meaningless on the printed page.

The Court: Very well.

Mr. Subkow: Will you also mark his Honor's exhibit at the same time?

The witness will do it for you, if you wish.

The Witness: You will have to give me a pen that will mark on this glossy photograph.

I believe we are concerned with Exhibit 12 in this case.

(Testimony of Cleon James Moon.)

Mr. Subkow: Yes. Will your Honor let us have Exhibit 12?

The Court: Yes.

(Whereupon the exhibit was given to counsel and then to the witness.)

Mr. Subkow: Mark the matter which you are going to testify to with numbers, and then you can testify.

The Witness: I will mark the main drum which handles the tubing block as 1; and the sand reel, which handles the swab or bailer, as 2.

Mr. Subkow: May I interrupt? Please mark the exhibit first and then hand the exhibit to his Honor so that when you identify them his Honor will have it before him and can follow your testimony.

(Whereupon the exhibit was handed to the court.) [15]

Mr. Subkow: Now, will you repeat your statement?

The Witness: I will mark the main drum, which handles the tubing block, as 1; and the sand reel, which handles the bailer or swab, as 2.

Mr. Subkow: Is your Honor familiar with the terms "tubing block" and "bailer" and——

The Court: I am familiar with "bailer." You might state them for the record.

Mr. Subkow: Will you explain your terms?

The Witness: Yes. These derricks are carried strung up at all times. In other words, the traveling block, which I call the tubing block, because it handles the tubing——

(Testimony of Cleon James Moon.)

The Court: It pulls it out of the well?

The Witness: Yes. What it does, it provides a mechanical advantage, due to the number of lines up from the main drum, around and around the crown block and the traveling block. It's just a block and pulley system.

The Court: Yes. Well, this derrick, this portable derrick is always rigged to go to work, is that it?

The Witness: That's right. It's always rigged ready to go to work. And the blocks are carried in the structure. And when the mast is erected it is tilted forward slightly so that the block will clear the mast. And then on the bottom of the block there is a hook located, and on the sides there are what we call "elevators" and "elevator links." [16] It amounts to merely a gripping mechanism, which is fastened around the end of the tubing so that the tubing may be pulled.

Q. (By Mr. Subkow): Mr. Moon, is the derrick, when it is erected, the same length as shown in the photograph?

A. No, it is not. The derrick is roughly twice the length when erected that it is as shown in the photograph. Actually, it isn't quite twice because there is a telescoping lap between the two sections, and the derrick is not completely telescoped.

In the photograph shown in Exhibit No. 12, the length of that derrick extended is about 98 feet; whereas the length of it collapsed is about 58 feet.

Q. Are there means provided to extend that derrick when it is erected?

(Testimony of Cleon James Moon.)

A. Yes. Means were provided to extend this derrick by means of a very small extending winch driven by the same power that drove the hoist drums and drove the vehicle over the road.

Q. That is, after the derrick is erected it is extended by pulling out one section from the other?

A. That is correct.

Q. What is the section that you pull out and extend called?

A. We call that the inner section or the [17] upper section. Whereas the outside section is called the outside section and the lower section. Usually on our shop drawings we specify upper section and lower section.

Q. Can you describe how this unit is positioned at the well?

A. Yes, I can. When a well needs servicing, the driver approaches the well site by driving toward it with this unit. And if space permits—and in this particular instance this country was thoroughly flat—he goes by the well site and backs the unit toward the well in much the same manner as you would park a car in a parking space along the curb.

Now, he has to be very careful when he is doing that, because as far as his position is concerned he is essentially blind. He cannot see the well head. And he frequently will stand on the running board with the truck in low gear and will have one or two spotters at the well head with devices such as a measuring wand of some kind measuring the distance of the back end of the machine to the well

(Testimony of Cleon James Moon.)

head. He will jockey back and forth until he gets the unit centered up and the proper distance from the well head.

Q. What is the importance of this careful positioning?

A. The importance of careful positioning was that he had to have the blocks centered within a very short distance, an inch or two, of the center line of the well. In the case [18] of the pumping well it would be the polish rod. The polish rod is fastened to the string of rods that pump the well.

The reason for that is that if it was off center it would put an eccentric load on the crown of the mast.

Q. What is the "crown of the mast"?

A. The crown of the mast is the crown block at the front end of the mast. In this case, the top end. [19]

Q. Are those the pulleys that appear——

Mr. Subkow: Your Honor, may I approach the witness to look at that?

The Court: You may.

Q. (By Mr. Subkow): Is that the pulley that appears at the extreme end?

A. That is the pulley that appears at the extreme end. If you were not directly over the well an eccentric load would be applied to the mast, and if sufficiently large, could cause eccentric loads to go down through the structure and load one side of the mast more than another.

Furthermore, it has another disadvantage. It

(Testimony of Cleon James Moon.)

causes excessive line wire or excessive flange wire on the sides of the pulley in the crown.

Q. Now, in order to permit spotting, have aids been employed? In this connection I call your attention to Exhibit 9.

Mr. Subkow: Will you hand Exhibit 9 to his Honor?

(The document was handed to the court.)

The Witness: Yes.

Q. (By Mr. Subkow): Will you describe what Exhibit 9 shows?

A. On some locations some operators would make concrete mats which had curbs, which are shown about the rear wheels in Exhibit 9. This curb had two advantakes. It lined [20] up the back end of the truck in line with the well, and it acted as a stop, so that it was unnecessary to make an accurate measurement from the center line of the well to the back end of the vehicle.

Q. Is this an ordinary and usual provision at well heads?

A. Not all operators use them. Some of them do. Some of them don't. This photograph was taken in West Texas, where there were many of them.

Q. Now, by the way, the drivers who drive these trucks, are they professional truck drivers?

A. No, usually the head well puller drives the vehicle, and not being a professional truck driver, sometimes with certain types of vehicles it is something of a rather difficult thing for him.

(Testimony of Cleon James Moon.)

Q. I hope I don't make trouble for the oil companies with the unions by this question.

A. The oil company workers in California are unionized, anyway.

The Court: I suppose the size of the truck is involved, that the truck can't carry many passengers, and every passenger must count, so that it is more important to have him a good oil well worker than a good truck driver; is that correct?

The Witness: In some cases they have used people in their [21] organizations who were in the transportation department when a vehicle was exceptionally difficult to spot. Ordinarily, on level locations they would use the well crew.

Q. (By Mr. Subkow): Now, we have posted the unit at the well head. What happens next?

A. The derrick is secured to the ground, or——

Q. Now, just a moment, sir. Let me point out that you have just arrived at the well head. Your derrick is on the truck, I presume. What is the next step in the operation?

A. Well, concerning the raising operation, in the case of Franks, and that is the one we are discussing, the one in Exhibit 12 and the one in Exhibit 9——

Q. Does that include 13?

A. Yes, and 13, the mast was erected to slightly over-center. It was tilted over-center, oh, three to four degrees. That was a variable thing with the Franks. You could adjust it. It was erected by means of a power screw mechanism.

(Testimony of Cleon James Moon.)

Q. Just a moment. Exhibit 13 shows the derrick in what posture?

A. In the partly erected posture.

Q. Will you turn to Exhibits 10 and 11. Do these exhibits illustrate the form of screw lifting mechanism to which you have made reference?

A. Exhibit 10 shows a form of portable derrick.

The Court: That is the White patent?

The Witness: The White patent, used or patented by Carl White, Jr., and assigned to Franks Manufacturing, and concerns largely the latching arrangement of the derrick, although it does show the screw raising mechanism for such a derrick, as is shown in Exhibit 11 of the Woody patent.

The Court: Where is that in one of the drawings?

Q. (By Mr. Subkow): Will you identify it by reference to the drawings, and the numbers, and describing how the structure operates to erect the derrick, referring to the exhibit number in doing so.

A. Looking at Exhibit No. 11, since it pertains primarily to the screw raising mechanism, you will notice that a long channel frame 15——

The Court: In Figure 1?

The Witness: ——in Figure 1 is located above the truck bed, the number of which I cannot find. Apparently the truck is all called Item 3.

Q. (By Mr. Subkow): May I point out Item 2? Are you talking about the Woody patent?

A. Yes, I am talking about——

(Testimony of Cleon James Moon.)

Q. May I call your attention to Item 2, towards the front end of the truck bed.

A. In Figure 1?

Q. In Figure 1 and in Figure 2. Are we looking at the [23] same thing?

A. No, Figure 2 is not the truck frame. Figure 2 is an extension of the raising screw channel 15. The truck frame is below that channel. The two are stacked one on top of the other.

The Court: It is perfectly obvious that the truck frame is, I think.

The Witness: Yes. Now, on top of that truck frame and located in this channel and channel extension previously mentioned is a long drive tube, and I am afraid here I will have to refer to Figure 7, No. 25, long drive tube 25, which drives a drive nut 23, which is housed in a housing 22, and rotates on ballbearings that are not numbered. This drive tube drives the drive nut, and then fastened to the drive nut or passing through it is a long screw shown in Figure 4, and called out as 19.

Figure 4 is one of the best graphic descriptions of the mechanism. Secured to the end of the drive screw 19 is a crosshead 14, with rollers 16 riding in the channel 10, or 15—I am sorry—10 is an extension of the channel, and secured to the crosshead is a raising arm 18. This raising arm is then secured to the bottom of the mast, so that when the drive screw is rotated by power from a sprocket at the end of the drive tube—that sprocket is on the opposite end of 27 in Figure 1; 27 is a bearing block

(Testimony of Cleon James Moon.)

[24] and is not further described except that the sprocket is turned by power from the truck engine. As the sprocket is turned, the tube turns, and that retracts the raising screw, and in turn pulls the derrick up about the hinge 4 in Figure 1.

Q. Mr. Moon, is the Item 14, which is this cross-head block, shown in the original position where it starts to raise the derrick on Figure 1 of the Woody patent? A. Yes.

Q. Which one is it? It is the dotted line?

A. The dotted line is the original position.

Q. All right. Then do I understand when you say retracted, it moves from this position to the full position for the fully erected position?

Mr. Kenway: Your Honor please, I don't want to interfere with my brother's presentation of the case, and I had expected by this time that something would come out to tie this matter of this Woody patent into the issues, but I now object. It seems to me to be entirely irrelevant and immaterial to the issues we are trying here.

The Court: The purpose of it is?

Mr. Subkow: Is to show the background of what this man has accomplished.

The Court: To show what was the art before?

Mr. Subkow: And what has been done. Why we are asking [25] your Honor to sustain this patent. That is at least one reason.

The Court: Very well. Overruled. You may proceed.

The Witness: The mast is erected to the vertical

(Testimony of Cleon James Moon.)

position by retracting the screw into the tube, and by rotating the tube. After it arrives to a near vertical position, passes over-center, the mast is then extended. It is extended by means of a small body winch and a cable mechanism which——

Q. (By Mr. Subkow): Is that shown?

A. That is not shown in the Woody patent. It is shown in the White patent, Exhibit 10.

In this case the extending winch 25 actuates cable 24, which passes under guide sheave 27 and 21.

The Court: Over 21?

The Witness: Over 21.

Q. (By Mr. Subkow): Where is 21 in Figure 1?

A. In Figure 1 goes up the inside of the outside section, and—— [26]

Q. Is that shown in one of the figures of the White patent?

A. It is shown in Figure 1.

The Court: The inside of the outside section of the derrick.

The Witness: It goes up the inside of the outside section of the derrick until—referring to——

Q. (By Mr. Subkow): May I call your attention to Figure 4?

A. Yes. Until—referring to Figure 4 and to Figure 3A. It goes over sheave 22, back down around the outside of the inside section and across sheaves 23 on each side and back up to a dead end at 28.

Now, as the winch is rotated, winch 25 is rotated, shortening the cable, the upper section is extended

(Testimony of Cleon James Moon.)

until it reaches the top, or near the top, of the lower section, at which place a locking mechanism is actuated which locks the two sections together.

Q. Now, during the period that the derrick is raised through the posture shown in Figure 13, and between the posture shown in dotted lines and in full lines in the Woody patent, 2,204,716, what happens to the back end of that truck?

A. The back end of that truck suffers a very severe deflection. Now, we had—— [27]

The Court: Causes a downward pressure on it?

The Witness: No. At the start the deflection is upward, and it continues upward until the center of gravity of the mast approaches the hinge point of the mast erecting structure.

Now, that hinge point is shown at Figure 3 in the Carl White patent.

Jacks were provided, which are not shown in the patent but are shown in photograph 9, to stabilize that rear end. However, because the force was upward rather than downward, these jacks left the ground until about two-thirds of the erection was accomplished.

Q. (By Mr. Subkow): Can you explain why that was lifted?

A. It was lifted because the raising arm 4 had to lift the mast of the derrick 2, reading from the Carl White patent. And since this member is in tension, and since the center of gravity of the mast is well behind 3, we had a downward force due to

(Testimony of Cleon James Moon.)

the center of gravity ahead of the hinge point and an upward force behind the hinge point.

This upward force was of such a magnitude as to cause the frame to deflect several inches. In fact, it was not unusual for these jacks to be off the ground as much as four inches.

I had to repair one of these masts—the first one that the Shell Oil Company obtained in California—because [28] the jacks were off the ground and, consequently, were inadequate to stabilize the structure; and the springs on one side of the vehicle failed and caused the mast to overturn. I repaired that mast, I believe, in 1942 at Dominguez.

Mr. Subkow: Now, your Honor, at this point, in accordance with the permission given me, I would like to read into the record an admitted fact. It will save some time.

This is Item 16 of the Pretrial Conference Order, Item III.

“Conventional trucks as used in the construction of back-in units in which the derrick was carried to be hinged on the rear of the vehicle were not suitable to carry heavier derricks of the telescopic type. Not only were there structural characteristics insufficient, but the weight distribution was also unsuitable for engineering and legal reasons; the legal reasons being the necessity for compliance with the various highway codes of the various states. In building the drive-in units in which the derrick is hinged at the front of the truck it became feasible to custom build the unit to obtain a weight distribu-

(Testimony of Cleon James Moon.)

tion which would be desirable and which would satisfy both engineering and legal requirements for such structure.”

Your Honor, at this point I would want to go into that [29] aspect of the case. And this may be, with your permission, an appropriate time to adjourn for lunch.

The Court: Very well. We will take the noon recess until 2:00 o'clock.

(Whereupon, a recess was taken until 2:00 o'clock p.m. of the same day.) [30]

Tuesday, March 25, 1958, 2:00 p.m.

The Court: Ex parte matters?

The Clerk: No ex parte matters, your Honor.

The Court: You may proceed.

Mr. Subkow: Will you resume the stand, Mr. Moon.

CLEON JAMES MOON

the witness on the stand at the time of the noon recess, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Mr. Lyon: If the court please, the stipulation which I promised has been handed to your clerk.

The Court: Very well. I have it before me.

Mr. Subkow: Your Honor, at the termination of the morning session I read a paragraph into the record of the admissions.

The Court: About complying with the traffic laws?

Mr. Subkow: Yes, sir. Now, your Honor, we

(Testimony of Cleon James Moon.)

have a Vehicle Code book for the year 1949, and I believe the law was no different in 1948 and 1947 on the points that we were discussing. The Vehicle Code refers to certain technical matters, and while I understand that you can't interrogate a witness as to the meaning of the law, this [31] law is so much a matter of techniques that are involved that I thought it might save time instead of going through the formal matter that I shortcut it and ask him certain questions with respect to the requirements of the law, which would bring out the problems which were faced by these people in designing and transporting vehicles.

I have consulted with opposing counsel, and the informal manner seems to be the practical way to proceed.

The Court: Yes, or you can ask the witness if the law was so and so.

Mr. Subkow: Then may I hand the witness the Code?

The Court: Or what his understanding of the law was at that time, and then the court will take judicial notice of what it was.

Mr. Subkow: Thank you. It is unnecessary to mark this as an exhibit, because it is an official document, and the court can refer to it.

The Court: He may testify on the assumption that the law was so and so, according to his understanding.

Mr. Subkow: Then may I hand this to the witness?

(Testimony of Cleon James Moon.)

The Court: Yes, you may.

(The document was handed to the witness.)

Q. (By Mr. Subkow): With reference to the Vehicle Code which I handed you, Mr. Moon, will you tell the court what requirements were imposed upon designers and users of portable [32] derrick equipment in order to employ the public roads of California?

The Court: As of what time?

Mr. Subkow: As of the years prior to the date of your invention, December 12, 1946.

The Court: In other words, the purpose of this is to show the problems confronting the industry at that time?

Mr. Subkow: That is right.

The Court: Very well.

The Witness: The Vehicle Code had limitations with respect to weight, height, length and width.

In the case of width, the load could not exceed 96 inches, and the width of the vehicle at the tires could not exceed 100 inches.

In the case of height, the load or the vehicle, or the combination of both, could not exceed 13 feet 6 inches.

In the case of length, the load mounted upon the vehicle could not exceed 60 feet, with one exception. There was an exception that certain types of loads could be carried which were 75 feet long. [33]

Mr. Subkow: Did that type of load include portable servicing and drilling masts?

The Witness: Yes, sir, that type of load in-

(Testimony of Cleon James Moon.)

cluded portable drilling and servicing masts separately carried.

Q. (By Mr. Subkow): Did it include it when mounted upon the truck such as shown in your Exhibit No. 12? I believe it is No. 12.

A. Exhibit No. 12, the photograph. The legal limit of that was 60 feet.

Q. Proceed, Mr. Moon.

A. The front overhang limit was to be no greater than three feet in front of the vehicle bumper. The rear overhang could be two-thirds of the wheel base. And in California the wheel base is considered the distance between the front wheel and the rear wheel.

Now, in some states it is considered the distance between the center line of the front wheel and the center line of the rear two wheels.

As far as load was concerned, that was on a formula basis, based upon wheel base, and single axles, and tires. And starting out with the tires, no tire or wheel could carry more than 18,000 pounds.

I would like to correct that. No tire could carry more than 9,000 pounds. No single axle could carry more than 18,000. The combination of axles, such as at the rear, was [34] based upon a wheel base loading, and for a four-foot axle spread, and at that time it was 30,800 pounds.

Now, this 1949 vehicle code shows 32,000 pounds. That was changed at that time. At the time of the design we were operating on the '46 code, at the

(Testimony of Cleon James Moon.)

time of the invention. And a four-foot spread between the axles, 30,800 was the legal limit.

Then in addition to that the formula applied to the wheel base between the front wheel and the rear wheel. Now, on a 240-inch wheel base vehicle such as this is——

Q. “This” referring to Exhibit No. 12, Mr. Moon?

A. Yes, to Exhibit No. 12. The allowable load on that vehicle would be 51,200 pounds.

Now, that’s again on the 1949 code, and I believe the code stayed the same on the over-all wheel basis.

Mr. Subkow: Does your Honor wish to look at the Vehicle Code?

The Court: No. Thank you.

Mr. Lyon: I think it would be a good time to remark that as far as I have heard from the evidence you haven’t identified that as the California State Vehicle Code.

Mr. Subkow: Well, if I haven’t I apologize. We have been referring to the California Vehicle Code. The witness has in his hand the Vehicle Code of the State of California for the year 1949. [35]

Q. (By Mr. Subkow): Now, were back-in units manufactured by others than Franks Manufacturing Company prior to December 12, 1946?

A. Yes.

Q. Did they also have the same problems with regard to legality that Franks had for their truck-mounted units?

(Testimony of Cleon James Moon.)

A. Well, the law applied to everyone.

The Court: I would assume that they would all have problems of weight, problems of visibility, and problems of highway clearance. I suppose they are the law in practically every state, aren't they?

The Witness: Yes. They are not the same laws, but there is a law.

The Court: There are restrictions.

The Witness: There are restrictions.

Mr. Kenway: Am I correct in understanding that this testimony is directly solely to the laws as they were in California?

Mr. Subkow: They have been up to this time.

The Court: As I understand the purpose of it is to show the problems confronting this industry at that time.

Mr. Kenway: I wasn't objecting. I just wanted to make sure that it was only the California laws that the testimony referred to. They are somewhat different in other states.

The Court: Yes. But I merely observe that I would [36] assume that anyone that was attempting to work with a device such as this would be confronted with weight problems, with visibility problems and highway clearance problems in every state where you enter upon the highway.

Mr. Kenway: Yes, sir.

The Court: And those problems, I suppose, would vary in degree and kind—would vary in degree but not in kind in different states.

The Witness: That's right.

(Testimony of Cleon James Moon.)

Mr. Subkow: The purpose of my last question was to extend the consideration to other states, as well, without going into detail meticulously with the provisions of each of the states.

We have had an admission with regard to the legality with regard to these units in other states.

The Court: And without regard to the law of the state, I assume, consistent with strength, that it would be economically and otherwise desirable, to make the derrick as light weight as possible and practical.

The Witness: That's correct. They are made in several sizes, and every effort has been required, actually, to try and make the units legal.

The Court: What are they made out of? Aluminum?

The Witness: No. Some of the recent ones have been made out of aluminum. This particular mast was made of [37] seamless cold drawn alloy steel tubing.

The Court: That was back in 1940——

The Witness: Well, this one refers to a time around 1942, Exhibit No. 12 does. The tubing was quite similar to the tubing used in aircraft.

The Court: Hollow?

The Witness: It was hollow, and was high strength. It had a yield point double that of mild steel—more than double.

Mr. Subkow: May I be permitted to repeat my question? Perhaps it is duplicating, but it helps me pick up my line of thought.

(Testimony of Cleon James Moon.)

The Court: Yes.

Q. (By Mr. Subkow): Did Franks have competitors prior to December of 1946 who also manufactured these portable back-in derricks mounted on trucks? A. Yes.

Q. During your connection with Franks—which is a shorthand terms for Frank Manufacturing Company—do you know whether there were any requirements or requests by customers of Franks for the production of portable units which would comply with the state laws and avoid trouble with the highway authorities?

A. Yes. There was a continual requirement there. Almost every inquiry that was received from any customer, [38] particularly the major oil companies, requested that we either make the unit legal, or we try to make it legal. Some orders were lost because we could not make it legal.

The reason I mention major oil companies is because the major oil companies have a great number of fields widely separated, and they can move these units from one field to another. Consequently, it is desirable to use the state highways for transport. Some companies, where they have a sufficient number of wells on one lease to keep one unit busy, are not quite so interested in legality, since they do not plan to get it on state highways.

But, generally speaking, it was a requirement that the units be made legal. [39]

Q. Now, Mr. Moon, did it mean necessarily that because these units were illegal as not meeting the

(Testimony of Cleon James Moon.)

requirements of the law that they were bootleg units and could not be used?

A. Not at all. If you have a unit that is overweight, and, for that matter, illegal in other respects, but principally overweight, it is possible in the State of California to obtain a permit to move that unit. However, that permit is restrictive. You can move the unit only during week days in the day time. You cannot move it at night, on weekends, holidays, or in bad weather.

Consequently, when an operator had a well down and wanted to get it back on production very quickly, if the unit was an illegal unit, he was faced with a handicap. He had to wait until the time was proper for movement.

The Court: Or take his chances?

The Witness: Well, or take his chances. I suspect that some of them took their chances.

The Court: He would not be the first overweight vehicle on the highways of California.

The Witness: Certainly not.

Mr. Subkow: At the present time I would like to read into the record the answer of Cabot Shops, Inc., served February 21, 1958, to plaintiffs' interrogatories. Due to the stipulation that was just presented, it will be [40] unnecessary for me to distinguish between the answers of the various defendants. I will now read——

The Court: Who are the various defendants? You know, with this practice of putting "et al." on, you lose——

(Testimony of Cleon James Moon.)

Mr. Subkow: We struck the other defendants out by interlineation, your Honor.

The Court: That is my understanding. If you move that way, however, I wonder if my memory is serving me or not.

Mr. Subkow: Cabot Shops, Inc., and Howard Supply Company.

The Court: Are the only two?

Mr. Subkow: Yes.

The Court: Then let's resolve that all other papers in this matter carry that. It will take almost as much space to write "et al.," as it will to write "Howard Supply Company."

Mr. Subkow: Your Honor, there has been a stipulation just handed to you in which Howard Supply Company, who has not yet answered, will do it now by adopting the answer of Cabot Shops.

The Court: Yes. I am speaking of the habit of putting the "et al." in the caption.

Mr. Subkow: Yes.

The Court: It would not take much more time and effort to put "Howard Supply" there, and then we would know who the defendants are. [41]

Mr. Subkow: Yes. Lawyers are notoriously lazy, your Honor.

The Court: We get habits, and the secretary takes the last pleading and she starts from there.

Mr. Subkow: That is right.

The Court: I often have cases where there are a number of fictitious defendants named, and we dismiss all of those, and then here comes pleading

(Testimony of Cleon James Moon.)

months afterward that still have the Doe defendants.

Mr. Subkow: I will resume again. I will now read the answer of the defendants served February 21, 1958, to plaintiffs' interrogatory VIII:

"Did any of the customers of Franks Manufacturing Corporation, prior to the manufacture of the Clipper units referred to in Interrogatory No. I, request that they be supplied with portable lattice derricks of the telescopic type mounted on motor vehicles which would comply with the laws of the various states regarding the movement of such vehicles over public roads? If the answer is in the affirmative, state the names of the customers and the dates of the request.

"Answer: I am certain that verbal suggestions were made from time to time. As a matter of fact, the only excuse for designing and producing the [42] telescoping derrick mast in the first place was to make possible use of a doubles mast having tolerable road lengths both from the practical usage standpoint and highway permissibility."

I will read the answer of the defendants to the interrogatories Nos. V, VI and VII, substituted by stipulation for previous interrogatories, and served March 20, 1958.

Your Honor, I have a problem here that I would like to have some disposition on. The interrogatory is responsive in one sentence, and non-responsive in the other. I wish to offer only the responsive part. I don't want to offer the non-responsive portion,

(Testimony of Cleon James Moon.)

and I will read it merely to present the problem to your Honor, and then your Honor may give a ruling as to whether the whole interrogatory should go in or only a portion.

The Court: It is your interrogatory?

Mr. Subkow: It is my interrogatory, but it is their answer.

The Court: It is competent for you to move to strike any non-responsive portion of it.

Mr. Subkow: That is the point I am raising at the present time, and I would like to have a ruling as to whether or not the whole interrogatory has to go in, or only a portion of it, so that I may determine what I want to introduce.

The Court: Very well. Which is it now? [43]

Mr. Subkow: It is the answer——

The Court: The filing date is what?

Mr. Subkow: ——of March 20, 1958.

The Court: It was filed March 21, I believe.

Mr. Subkow: Well, it was served on me on March 20th, and that is the only record date I have.

The Court: The interrogatory is what?

Mr. Subkow: It was the interrogatories, the substitute interrogatories V, VI and VII. Perhaps I can find the page for you.

The Court: Certain interrogatories were substituted by stipulation for Interrogatories V, VI and VII.

Mr. Subkow: Those are the ones I am talking about.

The Court: Now, which is it?

(Testimony of Cleon James Moon.)

Mr. Subkow: May I locate the page for you?

The Court: The document I have before me is only five pages or six pages in length.

Mr. Subkow: It is the answer which appears on page 2 of the document, beginning, "Prior to March 20, 1958,"——

The Court: It is an interrogatory numbered 2 in the document.

Mr. Subkow: No, it is——

The Court: Not Roman II, Arabic 2.

Mr. Subkow: If you will note page 1 of the document——

The Court: It is Arabic 2 of the interrogatory numbered [44] Roman I, is it not?

Mr. Subkow: No, sir, it is the answer to the entire interrogatory, all parts, beginning on page 1 of the document. You will see it says, "Comes Now the defendant, Cabot Shops, Inc.,"——

The Court: Yes, I see. I have read it. It is the entire answer to that interrogatory numbered 1.

Mr. Subkow: In all its parts.

The Court: Very well. Beginning, "Prior to March 20, 1958, defendants, Cabot Shops, Inc.," and so forth.

Mr. Subkow: Yes.

The Court: What portion do you say is non-responsive?

Mr. Subkow: The last sentence.

The Court: Beginning with "Because"?

Mr. Subkow: No, "Further answering." The

(Testimony of Cleon James Moon.)

inquiry was directed to the forms shown in Exhibit——

The Court: Is there any objection to striking it on the ground that it is non-responsive?

Mr. Kenway: No objection.

The Court: Motion granted, and that portion beginning "Further answering" is stricken. So you may offer in evidence, if you like, the other portion without that.

Mr. Subkow: All right. (Reading):

"Prior to March 20, 1958, defendants, Cabot Shops, Inc., and Franks Manufacturing Company, have [45] sold back-in units similar to those specified in said interrogatory, which units, because of excess weight on the front and/or rear axles and wheels and the front overhang, did and do not comply with the laws of California, Oklahoma and Texas, and do require special permission for moving. Because there were no scales available prior to 1942, it cannot definitely be ascertained whether units sold prior to 1942 did and do fail to comply with the laws of other states."

There is an ambiguity in that answer. The statement of the answer reads that they did and do not comply. I assume the answer to mean that they did not and do not now comply.

The Court: I will so read it. Is that correct, gentlemen?

Mr. Kenway: Yes, your Honor.

Mr. Subkow: I will now read the further admissions of fact before testimony. This comes from

(Testimony of Cleon James Moon.)

the pretrial conference order. It is Item III, 12, and is an adoption of a statement in the plaintiff's pretrial statement of facts. I will read the portion which was adopted:

“Defendant's predecessor, Franks Manufacturing Company, for long prior to the construction by Franks of its first Clipper unit had knowledge of the illegality of back-in units.” [46]

Q. Mr. Moon, while you were employed by Franks, and afterwards when you were selling Franks' units, did Franks make any efforts to supply a legal unit, to your knowledge?

A. Only to the extent that they tried to make units as light as possible, and arranged as well as could be arranged on large custom-built trucks.

Q. Did they succeed in these efforts?

A. No. [47]

Q. Were there any efforts made by manufacturers to supply legal mobile equipment for like or analogous services other than truck-mounted units?

And I show you, in this connection, Exhibits 15, 16 and 17.

Mr. Subkow: Would you please be good enough to show that to the witness?

The Court: They are photographs?

Mr. Subkow: No. One is an article. 15, 16 and 17.

The Court: Do you wish these placed before the witness?

(Testimony of Cleon James Moon.)

Mr. Subkow: The witness has his own copies, your Honor.

The Court: Have they been received in evidence?

Mr. Subkow: They have not been offered.

The Court: Will you hand them to the court, please?

(Whereupon the documents were handed to the court.)

Mr. Subkow: May I have a stipulation that Exhibit No. 15 is a page from a Franks catalog, which on my exhibit sheet is identified as a 1940 catalog, Franks catalog?

Mr. Kenway: Page 10?

Mr. Subkow: Yes. I believe that is what my records show.

Mr. Kenway: Yes, that is correct.

The Court: Received in evidence. Exhibit No. 15.

(The exhibit referred to marked Plaintiffs' Exhibit 15, was received in evidence.) [48]

Mr. Subkow: Will you identify No. 16 for the record, Mr. Moon?

The Court: Aren't these covered by a stipulation in the pretrial order, these documents?

Mr. Subkow: Well, your Honor, in the pretrial order the stipulation had nothing to do with the admissibility in evidence. There is merely a list of them.

The Court: Well, does the stipulation cover the foundational facts?

(Testimony of Cleon James Moon.)

Mr. Subkow: Of these——

The Court: The genuineness and due execution of the documents.

Mr. Subkow: No, sir, it does not.

The Court: I am sorry I overlooked that. I never would have signed it. We are spending a lot of time with this. All this should be covered by stipulation.

Mr. Subkow: It really should be.

The Court: There is no question about it. We are just wasting a lot of time. It's just like playing paper dolls here. All of them should go in evidence in one statement, unless you have some real genuine issue with respect to it.

Mr. Subkow: Well, your Honor, of course this must be said: That as a result of all these admissions the exhibit situation changed materially. I had 140 exhibits, and I have cut a third of them out. [49]

The Court: But this should have all been settled before you came to court.

Mr. Subkow: Well, will you identify Exhibit 16?

The Court: Exhibit No. 16 is a brochure of the Westinghouse Electric Corporation, as I understand it. Is it stipulated to be genuine and in all respects what it purports to be?

Mr. Kenway: Yes, your Honor.

The Court: Received in evidence.

(The exhibit referred to marked Plaintiffs'

Exhibit 16, was received in evidence.)

The Court: Exhibit No. 17 is what?

(Testimony of Cleon James Moon.)

Mr. Subkow: A brochure.

The Court: A brochure by Waldrip. Is it stipulated to be genuine and in all respects what it purports to be?

Mr. Kenway: There is just one point there. It bears no date. I would like to include that in the stipulation.

The Court: Well, it doesn't purport to have a date.

Do you want to offer a date?

Mr. Subkow: This has been in the affidavit before you on the summary judgment.

The Court: Can you stipulate to a date, or about when?

Mr. Subkow: I will ask the witness. What date would you give for this exhibit?

The Witness: I would say that it was printed in early [50] 1948.

The Court: Do you accept the stipulation?

Mr. Kenway: 1949?

The Court: 1948. Early 1948.

Mr. Kenway: Yes, your Honor, I do.

The Court: Stipulated to be genuine? It's received in evidence. Exhibit No. 17.

(The exhibit referred to, marked Plaintiffs'

Exhibit 17, was received in evidence.)

Q. (By Mr. Subkow): Mr. Moon, will you, using these exhibits, state briefly the nature of these structures which are referred to and the purpose which they were intended to serve?

A. Yes. This type of a structure——

(Testimony of Cleon James Moon.)

The Court: Refer to the exhibit when you do so.

A. —shown in Exhibit No. 15 is another approach to make a drilling rig mobile and, in certain aspects, legal. This particular mast shown in Exhibit No. 15 could be broken down into legal pieces and carried separately.

The draw works and engine unit, which was mounted on a skid, could likewise be carried separately as a legal package.

Q. Will you refer to Exhibit No. 16 and No. 17, and state—first, as to Exhibit No. 16, state what the nature of this type of unit was? [51]

A. This is another type of unit where the mast is carried separately. And in this case the mast shown on the cover of Exhibit No. 17 was built in 1946; and in Exhibit 16, Westinghouse Electric Corporation wrote an article concerning the use of the mast and the drilling rig. And in that article they make the statement that the “hook load capacity of the derrick is 300,000 pounds and it’s the first of its type having such a capacity that can be moved over the highway in a single legal package. The derrick with block strung may be compacted into a single 8 by 8 by 63 foot piece for legal moves over the highway. The weight of the entire unit is approximately 36,000 pounds.”

Q. Will you state where you read that statement from?

A. That is from Exhibit 16, page 3, the right-hand column, the second paragraph.

(Testimony of Cleon James Moon.)

And continuing to page 4, the left-hand column, and the continuation of the paragraph.

Q. Will you read the statement for the record?

Is that all? A. Yes.

Q. I call your attention to page 6, the left-hand column. Is there any statement there that is significant as to this feature?

A. Yes. This again concerns the problem of making legal packages that can be carried on the highway. [52]

“In considering the drilling base, Shell desired one that could be constructed in four pieces, would be light in weight, and so designed that it could be moved in legal loads on a single semi-trailer.”

This entire rig was arranged so that it could be broken down into legal-size packages.

Q. Mr. Moon, I hand you Exhibit No. 1, which is a copy of the patent in suit, 2,671,537, and will you state, by reference to this patent, how you arranged in your design to solve these problems?

First, I will ask you whether the structures as described in this patent were your first thoughts in the solution of this problem?

A. No, they were not. In the December 12th—no. In the November 5, 1945 version of this design, I had endeavored to use a screw mechanism that I had previously designed.

Mr. Subkow: May I ask the clerk to hand Exhibit No. 18 to the court?

(Whereupon the exhibit was handed to the court.)

(Testimony of Cleon James Moon.)

Q. (By Mr. Subkow): Will you identify this document?

A. Yes. This is a drawing which I prepared on or before November 5, 1945, in an effort to resolve the requirements of building a drive-in unit. At that time I had a [53] screw-raising design, and later a patent application on it, whereby the mast could be raised by means of a screw-raising system different than that from Franks, but still embodying the safety features that Franks had in their design.

Mr. Subkow: Now, may I ask the clerk to hand Exhibit 19 to the court?

The Clerk: The clerk doesn't have Exhibit No. 19.

The Court: Is that the Moon patent, 2,538,958?

Mr. Subkow: Yes.

May I offer Exhibit 18 in evidence?

The Court: Is there any objection to that?

Mr. Kenway: No objection.

The Court: Received in evidence.

(The exhibit referred to, marked Plaintiffs'

Exhibit 18, was received in evidence.)

Mr. Subkow: May I offer No. 19 in evidence?

The Court: Any objection to the Moon patent, 2,583,958, the flat copy?

Mr. Kenway: Yes, I object to it as being immaterial. I don't know what the purpose is.

Mr. Subkow: It will appear.

The Court: Is it prior to showing the surrounding circumstances?

(Testimony of Cleon James Moon.)

Mr. Subkow: Yes, your Honor.

The Court: Received in evidence. The objection is overruled. [54]

(The exhibit referred to, marked Plaintiffs' Exhibit 19, was received in evidence.)

[See Book of Exhibits.]

The Witness: May I continue?

Q. (By Mr. Subkow): Please continue, Mr. Moon.

A. When I started to develop the components to be used in this machine, I discovered that I had far too much weight on the rear wheels and that it would be necessary to move the hoist drums forward with respect to the front and rear wheels. The center of gravity of this mast and the hoist drums and the engine all overloaded the rear wheels. Consequently, it was necessary to move some of that weight forward.

That made it impossible to use this screw-raising mechanism for the simple reason that there wasn't enough room. So I then decided to go to a hydraulic cylinder system for erecting the mast. That, in turn, permitted me to move the components nearer the cab.

The Court: That would be forward?

The Witness: Yes, that would be forward.

Mr. Subkow: May I have Exhibits 20 and 21?

Your Honor, we offer a large drawing, which is Exhibit No. 20, and we have a reduced print of the same drawing. It will be much more con-

(Testimony of Cleon James Moon.)

venient to use the reduced print, but we offer the large drawing for the purpose of the record.

The Court: Is there any objection to it? [55]

Mr. Kenway: I am at somewhat a disadvantage, your Honor, because I didn't see these until this morning. I am very sorry this whole thing came up.

Mr. Subkow: May I say that your associates have seen this thing many times before.

Mr. Kenway: No objection.

The Court: Received in evidence as Exhibit 20. And the reduction of it will be Exhibit 20-A in evidence?

Mr. Subkow: Well, it's in the record as 21, your Honor, so we won't disturb the order.

The Court: Exhibit No. 21. I see. All right. Both 20 and 21 are received in evidence.

(The exhibits referred to marked Plaintiffs'

Exhibits 20 and 21, were received in evidence.)

Mr. Subkow: Will you hand the Exhibit 21 to his Honor?

(Whereupon the exhibit was handed to the court.)

Q. (By Mr. Subkow): Now, I notice, Mr. Moon, that there was a hiatus of almost a year between the date of Exhibit No. 18 and Exhibit No. 21. What caused this hiatus?

A. Well, several things. First, we had to start the fundamental design, the basic design of the mast, the drums, the automotive transmission equipment, the chassis and the means of erection. All of

(Testimony of Cleon James Moon.)

these influenced the weight and balance on the wheels.

As soon as the picture began to develop it became more [56] and more obvious that we would never make it with our screw-raising mechanism. So we had to backtrack a little and consider other means. That other means turned out to be a hydraulic cylinder mechanism. We had about two men besides myself working on this during that year, working out the very first design concept. And that is why there was about a year of elapsed time. [57]

Q. Now, referring to Exhibit 21, and the patent, I notice that there is a similarity between Figure 1 of the patent and this,—

The Court: Which patent, now? We have to keep in mind that there are many patents around here.

Mr. Subkow: The only patent that is of great significance to me, and that is the patent in suit, 2,671,537.

The Court: Exhibit 1.

Mr. Subkow: Yes. There is no answer to my question, I believe.

The Court: No.

Mr. Subkow: Will you read the question, please?

(The question was read.)

Mr. Subkow: There is no question, I see.

Q. Is there not?

A. Yes, there is a similarity.

Q. Well, using either of the two, the patent or the exhibit, will you describe the construction of the

(Testimony of Cleon James Moon.)

structure which was made on December 12, 1946, and which is embodied in the patent?

A. The structure——

The Court: In Figure 1?

Mr. Subkow: Well, the witness will undoubtedly say, your Honor.

The Court: What confused me was the concluding words [58] of your question. You said, “and which is embodied in the patent.”

Mr. Subkow: Yes, that is right, and I dropped my voice.

The Court: That assumes a fact not in evidence. He says there is some similarity, but I don't know whether that means that is something embodied or not.

Mr. Subkow: The witness will specify.

The Court: Which exhibit are you asking him to refer to? 21 and 1?

Mr. Subkow: Yes.

The Court: You will be surprised what you find when you sit down to read these records.

Mr. Subkow: Yes. I am very grateful, your Honor.

The Court: How I can read just page after page, and they can mean absolutely nothing, because you don't know which figure you are talking about or which exhibit.

Mr. Subkow: I know. I am very grateful to your Honor for the correction.

The Witness: Looking at Exhibit 21, then, and Exhibit 1, Figure 1, we see a chassis, comprising

(Testimony of Cleon James Moon.)

rear wheels, front wheels, an erection means, and a derrick positioned on derrick supporting members, a hinge positioned on derrick supporting members,——

Mr. Subkow: May I interrupt, your Honor? May the witness be instructed in describing this to refer to the [59] numbers in the patent, if he is referring to the patent, and it will clarify the record, I believe.

The Court: Yes, that would be helpful. If you are referring to Exhibit 21, the drawing on which the components are not numbered, you cannot say, but if you are referring to any corresponding number on Exhibit 1, Figure 1, the patent in suit, please tell us the number of the component.

Mr. Subkow: And may your Honor also amend your instructions to permit him to refer to other numbers in the patent, if they will help to clarify the matter?

The Court: Yes.

The Witness: Very well. Both of them consist of a chassis 11, shown in Figure 1; rear wheels 8, shown in Figure 1; front wheels 9, shown in Figure 1; an erection means shown at 27 and 28 in Figure 1; a cab, shown at 10 in Figure 1 and in Figures 3 and 4 and 6; a supporting means for the derrick shown at 14 in Figure 6, with unnumbered members adjoining the member 14; a hinge positioned on the mast 19 in Figure 1, and positioned——

Q. (By Mr. Subkow): Just a minute, Mr. Moon.

A. Yes.

(Testimony of Cleon James Moon.)

Q. You said the hinge was 19?

A. No, I said the mast was 19. Isn't that correct?

Q. I am sorry. I misunderstood.

A. (Continuing): A mast positioned on a hinge 21 and [60] 22, and it is a clamp type hinge; a mast cross-tube 17 being clamped into that hinge.

Q. May I inquire what 17 is?

A. Perhaps I had better refer to the text of the patent:

"Pivotally mounted inside the bearings 16 is the tubular cross member 17."

—the tubular cross member 17, which rides inside of the bearing cab assembly 16.

Q. May I call your attention to Figure 11?

A. Figure 11 is a detail showing the mast support tubes, with an overhead framing 15, tied into bearing assembly 16, through which the tubular member 17 runs. Tubular member 17 is secured to the mast and the mast is positioned at the hinge 16.

Q. Looking at Figure 6, there are some unnumbered members which extend from the bracket 26 at an angle, and a vertical member which extends downward from the apex.

A. Those are bracing members designed to carry the forces into the chassis from the hinge point and adjoining the vertical or near vertical members 14.

Looking at Figure 4, it will be noted that the rear derrick legs 34, and above the hinge and continuing below from a portal or window, through which the

(Testimony of Cleon James Moon.)

driver may view the road and the well head through the windshield.

Q. Where is the driver's position? [61]

A. The driver's position is where the driver sits at the automotive controls behind the steering wheel, or with parts of him along the steering wheel. In any event, it is the position from the front of the seat to the pedals, where he has control of the unit, as is conventional in trucks. In fact, the patent states that——

Q. Identify the part, if you are reading from the patent.

A. Let me see if I can find it here.

Q. I call your attention to column 2, line 31, et cetera.

A. Yes. Quoting from the patent, column 2, line 31:

“The driver in his cab position, where he has, as is conventional in trucks, all of the steering and driving controls, can see the derrick moving into position at all times and thus may, if he so desires, readjust his position with great facility. Because of the fact”——

Q. All right. Were you going to read some more? A. Yes.

Q. Go ahead.

A. (Reading):

“Because of the fact that the cab is positioned adjacent the front wheels, where also the derrick is provided, the driver has an unobstructed view of the location where the derrick is to be erected. [62]

(Testimony of Cleon James Moon.)

The improved visibility imparts a surer control by the driver who is in control of the lifting mechanism."

Q. Now, in the design, as indicated, it was proposed to put the lifting controls inside the cab?

A. We considered it during the early steps of the design. However, when we actually built some of these machines, we found it more convenient to put the controls on the outside of the vehicle, even though at times he might partly erect the derrick and get back into the vehicle to make a change in its location.

Q. Now, continue with your description, Mr. Moon.

A. Also included was the engine 4, shown in Exhibit 1, at the rear of the vehicle, and the necessary transmission equipment to the wheels and to the hoist drums, which are shown at 6 and 7, located between the engine 4 and the cab 10.

Additionally, and I believe I have mentioned this before, the erection means 27 and 28 was located behind the cab, and in front of the drum. This erection means was anchored at 25 on the chassis 11, and at 33 on the mast 19.

Q. Now, what kind of a derrick is shown in this patent?

A. This is a conventional four-legged telescopic type mast. The patent specification in column 1, line 8, I believe, or line 7, says:

"These masts are usually composed of one or more sections, usually two, in such form that the

(Testimony of Cleon James Moon.)

upper [63] section may be telescoped into the lower section."

Q. Are they the type that are disclosed in the White patent, 2,204,713, now in evidence?

A. Yes. They are quite similar. This one happens to be raised by a different mechanism than the White derrick, but, in general design, it is quite similar.

Q. Were there any modifications made of that derrick to adapt it to this design?

A. Only as was required by the mounting and the raising mechanism. If it is necessary to widen out the hinge to the extreme outside to enable us to get around the cab and to erect the mast around the cab, we had to have a portal through which the supporting structure—well, we had to have a portal through the rear structure through which we could see, and we also had to have a portal in the supporting structure so that the driver could see forward.

Mr. Subkow: Will you refer to Exhibit No. 11?

Does your Honor have Exhibit No. 11 before him?

The Court: The Woody patent? I have it.

Q. (By Mr. Subkow): Were there any modifications made in the design of the Woody patent to adapt it to this structure?

A. Yes, there were quite a few. If you will let me find my exhibit No. 11.

Excuse me. Here it is.

To begin with, we decided to design the unit from the ground up instead of using a conventional truck,

(Testimony of Cleon James Moon.)

The Court: Ball bearings?

Mr. Subkow: Well, no. The things that go inside the bushing and supports the weight. Well, I don't know.

The Witness: There is one thing I hadn't mentioned about——

The Court: The bearing is a babbitt, is that it?

Mr. Subkow: I suppose that is right. May we ask the expert on the stand?

The Court: Yes.

Q. (By Mr. Subkow): What would be the distinction between the bushing and the bearing?

A. Well, there are ordinarily two different types of bearings; the anti-friction bearings and the plain bearings. The so-called anti-friction types are your ball bearings, roller bearings and the bearings of that type—needle bearings.

Your plain bearings consist of an outside sleeve or tube with an inside bushing. The inside bushing can be bronze or babbitt, but it is a plain bearing. It has no extra working parts.

The Court: The bearing part is the bushing then.

The Witness: Well, not quite. The shaft bears against [67] the bushing. That's like the crankshaft in a car, it bears against the bushing, and the bushing is contained in a bearing cap or bearing sleeve. The whole assembly is considered to be the bearing. The bushing is merely the lining.

Mr. Subkow: May I inquire of the court when you regularly take your recess?

(Testimony of Cleon James Moon.)

The Court: Would you like to take the recess at this time?

Mr. Subkow: Yes.

The Court: We will recess for five minutes.

(Short recess.) [68]

The Court: You may proceed.

Q. (By Mr. Subkow): At the close of the session prior to the recess you identified the derrick as being a four-legged derrick. Will you identify by reference to the patent Figure 1 the various elements of that derrick?

A. May I have just a moment to check the specification of the patent?

The derrick, which consists of a four-legged telescopic type, includes legs, — rear legs 34 of the lower section, the extensions 25a of the lower sections, which are spaced transversely apart a distance greater than the driver's position in Figure 11 and Figure 4. The upper end of the lower section 18 rests upon supports or rests upon a support 20, positioned beyond the rear wheels just in front of the motor compartment 5.

Mr. Subkow: Pardon me. May I have the reporter read that? I lost the statement, and may I have the last sentence read?

(The portion of the answer referred to was read.)

Mr. Subkow: Thank you.

The Witness: Returning to legs 25, the extension of legs 25a, the distance between the ends of the

(Testimony of Cleon James Moon.)

legs 25a, and the distance between—excuse me. May I start again?

The distance between the ends of legs 25a and the pivot point 17 is somewhat less than the vertical distance from [69] the pivot to the ground so that when the derrick is erected the legs can swing into position, as will be further described.

I quoted that from the patent, Exhibit 1.

Q. Can you identify the place in the patent where that quotation appears?

A. Yes, that appears in the patent in Figure 1 and in Figure 3.

Q. Will you state what the purpose of the extensions 41 are, that is, at the bottom of Figures 3 and 4, at the bottom of the legs of the derrick?

A. Yes. We did two things with those extensions. When the derrick was in the vertical position, and again reading from the patent, Exhibit 1, the legs 41 are screwed down until they rest in position upon blocks 42, which are suitably provided.

The other thing that we did with those extensions was that we made them rather long and telescoped them back sufficiently to give us a three-foot legal overhang in California.

Q. Looking at Exhibit 1—

The Court: That is to the sides?

The Witness: Yes, fore and aft. We telescoped them back toward the cab so that we had no more than a three-foot overhang in California. [70]

The Court: You aren't referring to the overhang

(Testimony of Cleon James Moon.)

over the side. You are referring to the overhang at the end.

The Witness: The forward overhang. We were permitted only three feet in front of the vehicle. Consequently, since those legs do reach the ground, or nearly reach the ground, it was necessary to make those extensions a little more—that is, we had to screw them in more, slide them in more. We actually made them so they both screwed and slid, so that they did not extend over the vehicle more than three feet.

The Court: That would not apply, according to your understanding, to the rear end?

The Witness: No, that would not apply to the rear end.

Q. (By Mr. Subkow): That device, was that employed in all your structures?

A. No, it was not. We did employ this screw mechanism for ground assembly in taking the load of the mast in all the structures.

On the other hand, after we got into the design of this unit it appeared that we might have to shift the weight a little bit, and on the first two units we made a track on top of the cab and in the derrick so that the derrick could be slid back and forth and comply with the three-foot legal overhang and meet certain legal weight requirements.

Mr. Subkow: Your Honor, that was an aspect I was going to take up a little later. I just wanted to clear up something [71] here. I would prefer to go

(Testimony of Cleon James Moon.)

back to continuing with the description of the structure.

The Court: Very well.

Mr. Subkow: And I will revert back to that again. And may I be permitted to go over this ground again at that time?

The Court: If you feel that it's advisable, yes.

Mr. Subkow: Thank you, your Honor.

Q. (By Mr. Subkow): Now, where is the hinge of the derrick positioned?

A. The hinge of the derrick is positioned on the derrick and on the cab above the driver's position, with the derrick legs spaced transversely apart with respect to the longitudinal axis, a distance greater than the driver's position; and with a portion of the cab extending into the leg position, with the legs straddling the cab.

Q. Now, will you illustrate where that is shown on the patent—the patent figures?

A. It is shown at 17 in Figure 1 and in Figure 3 and Figure 6, and again in Figure 11.

Q. Now, referring to Figure 3, I notice that two of the legs which appear at the back, and the front legs, are on the side of the cab, is that correct?

A. That is correct.

Q. Where is the front leg positioned with respect to [72] the cab?

A. It is forward, and also to the side of the cab on each side of the cab.

Q. Does it make any difference with regard to the functioning of the structure as to where the

(Testimony of Cleon James Moon.)

hinge is positioned with respect to any cross section taken through the cab?

A. No, except that supporting members have to also be positioned to carry the mast.

Q. What dictates the position of the hinge?

A. The ability of the driver to see the well head partly dictates it. The weight and balance of the unit partly dictates it. The erection of the mast partly dictates it. And the proximity of the well head partly dictates it. You can't have it too close to the well head, and you shouldn't have it too far away. There is a range of several feet in there where the distance would be immaterial.

Q. Does the inclination of the derrick, which you are willing to tolerate, affect the positioning of that hinge?

A. Yes, it does. Ordinarily we try to make these masts lean, oh, three to four degrees—certainly no more than five degrees—and the position of that hinge is determined then by the lean of the mast and the position of the well head. Because the position of the well head is also relative to the lean of the mast, since the mast has to be [73] centered over the well head.

The Court: In which direction is it supposed to lean?

The Witness: It leans forward toward the well head so that the block, the traveling block hangs over the well head when the mast is erected.

The Court: That block is a little off center?

The Witness: Yes. With respect to the center

(Testimony of Cleon James Moon.)

line of the mast, the block always hangs vertical, but the mast leans out of the way, so to speak. It's sort of like a large crane, except it has the features required for oil field work rather than for crane work.

Mr. Subkow: May I refer to Exhibit 14——

The Court: That's a photograph?

Mr. Subkow: That's a photograph.

The Court: A photograph of the Franks back-in unit erected.

Mr. Subkow: Yes, your Honor.

Have you a copy of it?

Hand that to the court.

The Court: No, no. I don't want yours. I want the clerk to keep track of these and hand them to me, because if the witness is using his copy, between the clerk and myself we will have the other copy.

Mr. Subkow: Yes. I thought he had it. I don't understand. [74]

The Clerk: I thought it already was borrowed, your Honor.

The Court: It was borrowed by whom?

The Clerk: By the court.

The Court: Well, I've given it back to you.

Mr. Subkow: According to my notes No. 14 is in evidence, your Honor.

The Court: The photograph. It was received this morning.

The Clerk: You promised to supply one.

Mr. Subkow: Well, for the time being, in order

(Testimony of Cleon James Moon.)

to save time, would your Honor accept the witness' copy?

The Court: No. The clerk will find the exhibit. Let's find it now.

We have so many copies there is no excuse for any counsel taking them off the clerk's desk. So, they either should be on this bench or on the clerk's desk.

Did you give it to the reporter?

The Clerk: I believe Mr. Subkow promised to give me a copy. I have the tag here but it's not attached.

The Court: Very well.

Well, perhaps you haven't furnished it.

The Witness: If I may interject, we started to use this this morning and it was withdrawn. Do you remember?

Mr. Subkow: I will accept all blame for the situation.

The Court: Well, do you wish the tag attached. The clerk has the tag but he doesn't have an exhibit to go with [75] it.

Mr. Subkow: Let us put a tag on this exhibit——

The Court: Very well.

Mr. Subkow: And if I find the glossy one somewhere, why, we can replace it.

The Court: Very well. Proceed.

Q. (By Mr. Subkow): Ignoring the fact that it's a back-in unit, in using this exhibit only to illustrate how the derrick when erected tilts and the

(Testimony of Cleon James Moon.)

relationship of the block to the derrick, will you continue your description?

A. Yes. As the derrick is tilted forward the block swings farther away from the derrick. That means that you do have more room to get a cab into the general area. Looking at Exhibit 1, again, and comparing it to the photograph, the more the derrick tilts and the farther out the block swings, then the more room you would have to place a cab—in the side view only. There are other things which enter into placing the cab, as far as the cross section is concerned. But in the side view you would have additional room.

Q. Now, referring to the particular construction of the structure shown in your patent, will you state the relationship of the hinge point with respect to the forward end of the chassis?

A. The hinge point is positioned at the forward end of the chassis. And in that case I would again like to [76] consult the specification, where I say,

“Two bearings 16 are positioned through the roof of the cab upon the member 15. The bearings 16 are each split and composed of two halves 21 and 22 hinged at 23 and bolted together with bolt 24. Pivotally mounted inside the bearings 16 is the tubular cross member 17 of the lower section 18 of the derrick 19.”

Q. Have you finished your answer?

A. Yes.

Q. Now, does the patent describe any structure for rotating the derrick to the erect position?

(Testimony of Cleon James Moon.)

A. Yes, it does. It describes a hydraulic ram 27. And reading from the patent in column 4, line 33,

“The jack 27 is then extended, the derrick rotating off its cradle on supports 20 and pivoting around the pivot 17 into vertical position, as shown in Figs. 3 and 4. When the derrick is in vertical position the legs 41 are screwed down until they rest in position upon blocks 42 suitably provided.” Continuing about the hydraulic jack, it states, “It will be observed that in moving into position from its rest position to its vertical position the thrust load imposed by 28 is exerted against bracket 26 and against the ground through jack 28’ while [77] the static load imposed upon the pivot 17 is transmitted through the column 14 to the cross members 13 and longitudinal member 11 and to the front axle. The load on 13 acts with the load on 26 to produce a bending moment in the longitudinal frame member 11 between these points, which bending load is transmitted to the axle and to the ground. Since the load on 26 is carried on the member 11 between the rear and front axles and its moment is added to the weight of the truck and is greater than the moment of the static load on 13, there is no tendency of the truck to tip and a stable platform for the drilling derrick is presented even without the aid of the jack 28’.”

Q. Mr. Moon, I am sure that we would all like to understand that statement. Will you state what that description means with regard to the stability of the truck?

(Testimony of Cleon James Moon.)

A. What it means is this: As we begin to erect the mast, we have a downward load in the cylinder 28 against pivot point 25, which is located between the front and rear wheels.

Q. That means the load is directed towards the ground?

A. The load is directed towards the ground, that is correct. [78]

The Court: On the hypotenuse of the triangle.

Mr. Subkow: Let us approach it in this way, your Honor:

Q. (By Mr. Subkow): When the load is first introduced into the cylinder 27 and the piston 28 starts to extend, it starts to lift the load of the derrick, does it not? A. That is correct.

Q. And, therefore, a counter-thrust is exerted through the 27 against the bracket 26, Figure 6?

A. Yes. Against the bracket 26 in Figure 6, through the pin 25 at the end.

Q. And that thrust is exerted against the chassis 11. A. That is correct.

Q. Now, remembering that the derrick extends forward as a lever arm like the balance arm of a scale, it bears down to the left of the pivot point 33 where the piston 28 is fulcrumed on the legs of the derrick, is that correct?

A. That is right. [79]

Q. What happens as a result of that at the pivot 17 of the hinge?

A. We have an up thrust, which places the frame in bending.

(Testimony of Cleon James Moon.)

Q. Now, do the relationship of the hinge supports 14 and 15 to the proximity of the end of the chassis have any effect upon the character of the bending which occurs in that frame, chassis frame 11?

A. Yes, they do.

Q. What effect does that have?

A. The closer the members 14 are to the bearing point 26, the less bending moment will occur in the frame.

Q. Now, as to the distance between the supports 14 and 15 and the bracket 26, which you call the bearing point, what is the relationship there as compared to that described in connection with Exhibit 12, the back-in unit?

A. The difference there is that with the back-in unit in Exhibit 12—

Q. That is the Woody patent?

A. Yes. We have a downward thrust at the start of the raising at the hinge point, and an upward thrust at the end of the frame. The downward thrust introduces—well, the two combined together form a couple, one going down and the other going up, which introduces bending into the frame of considerable magnitude. It lifts the support jacks, screw [80] jacks off the ground.

Q. Do you get any such bending in the structure of the patent 2,671,537?

A. Not of that type. The force of the jack 27 is sufficient to apply a downward load at the wheels 8 and the wheels 9, and, additionally, if the jack 28-prime is down at the jack 28-prime—well, that then

(Testimony of Cleon James Moon.)

provides a sufficient amount of downward thrust to keep the frame stable, even though there is an up thrust at 17. In other words, the member 14 is in tension, but the frame ahead of 26, while it is in bending, is rigid enough to make the design stable on its wheels.

Q. Now, as the derrick is rotated towards its erect position, what happens to the center of gravity of the mast?

A. The center of gravity moves forward as the mast is raised. At one point it will be directly over the pivot point 25 at the bearing 26 in Figure 1 and Figure 6, and from there on it will be applying a downward load on the hinge 17, and into members 14.

Also, from there on the weight of the mast, which is considerably less than the weight of all the other components, such as the engine, hoist drums and frame, the weight of the mast will apply downward load, which is counterbalanced by the weight of the other components through the frame 11. [81]

Q. In what direction is the thrust load in 27 against the bracket 26 at that point?

A. The thrust load is still down until the mast passes over center, at which time then the mast, or, the piston begins to work as a double-acting piston.

Q. Well, now, approaching that point before center, do I understand that the thrust load is down at bracket 26 and down through the members 14 against 11 on both sides at both points?

A. There is a range in there where it can be, yes.

(Testimony of Cleon James Moon.)

Q. And when it passes over center, the other phenomenon occurs as you have described?

A. Yes.

The Court: Do you ever use a jack on that front end of the frame, in front of the front wheels?

The Witness: Yes, we have, that is right.

The Court: It would take a great deal of weight off of those tires, wouldn't it?

The Witness: Yes. In certain designs that we produced we have put a jack directly under the front end of the cab. Of course, in actual production we used a bumper which was of a substantial nature, and we did have jacks under the bumper.

Mr. Subkow: We propose to introduce evidence on that point, your Honor. [82]

It is obvious, your Honor, but for purposes of the record may I ask him to state the position of the load transmitting connection between the chassis 11 and the rotating means 27 with respect to the wheels of the vehicle?

The Witness: Would you repeat that question, please?

Mr. Subkow: Will you read the question to the witness?

(The question was read.)

The Witness: The position is between the front and rear wheels of the vehicle.

Q. (By Mr. Subkow): Now, having erected the derrick, will you locate the derrick legs with respect to the transverse extent of the driver's position?

A. Yes. The legs—the continuation of the legs

(Testimony of Cleon James Moon.)

34—perhaps I had better read that from the specification.

Mr. Subkow: Your Honor, I withdraw that question. I believe that has been answered previously.

The Witness: I have answered it previously.

Q. (By Mr. Subkow): Now, referring to the structure in its erect position, will you state the portion of the structure which carries the load to the ground?

Mr. Subkow: May I ask the witness whether he would like a drink of water, your Honor?

The Witness: Yes, I would.

Mr. Subkow: I don't want to imply that this is a dry subject, your Honor. [83]

The Court: No, no.

Mr. Subkow: Would you like the question repeated, Mr. Moon?

The Witness: It wasn't finished, I believe.

Mr. Subkow: I am sorry. May I have the reporter read it?

The Court: Yes.

(The question was read.)

Mr. Subkow: I am surprised to hear that. Does the witness understand my question?

The Witness: I am afraid I didn't understand.

Mr. Subkow: Then I will repeat it in other language.

The Witness: But the portions of the structure that carry the weight to the ground are the front and rear legs through the extensions 25a.

(Testimony of Cleon James Moon.)

Q. (By Mr. Subkow): Is that the only portion of the structure which transmits the load which is imposed upon the legs?

A. Under certain conditions the load could be carried to the ground through 14, and to adjacent members which are not numbered, and the chassis frame into the jack 28-prime, or through the wheels if that jack wasn't down.

Q. Will you identify verbally the structures which you say are unnumbered, and the figure in which they appear?

A. They appear in Figure 6. One member is a vertical [84] upright member rearward and parallel to member 14. The other is an angular member attaching to 26, and the member previously mentioned.

Q. They meet at the apex, then?

A. They meet at the apex. Another is a horizontal member tying into the apex of those two members.

Q. Does such a structure appear on both sides of the vehicle? A. Yes.

Q. Now, you stated that under some conditions the load on the legs is transferred to these members and to the chassis, and through the jack to the ground. Will you state the conditions under which that occurs?

A. There are several conditions. One of the conditions is the applied load to the crown.

Referring to Figure 1, it will be noted that the hoist drum 7 is located behind the cab and behind

(Testimony of Cleon James Moon.)

the erection mechanism. The line from the hoist drum goes over the crown and to the traveling block at an angle. This can be seen in a back-in type in the photograph shown on Exhibit 14.

Mr. Subkow: Has your Honor that exhibit before you?

The Clerk: What number is that?

Mr. Subkow: Exhibit 14.

The Court: I have it in mind.

Mr. Subkow: All right. I appreciate that. I am [85] visually minded, and unless I have a picture before me, I have difficulty.

The Witness: Now, since there is a load applied in that line when the tubing load is picked up, and since that line is at an angle, two forces are involved; one vertical force, which is up, and one horizontal force, which is forward. Since it is forward, it imparts a load to the vehicle frame, which is applied eventually against the diagonal member previously discussed, which base is at 26 in Figure 6 of Exhibit 1, and goes through the structure to the hinge point, where it is resisted by the derrick.

The derrick also tilts over, and it has a downward force and a rearward force, which has to be resisted by that joint.

Q. What is the number of the joint?

A. The joint at the hinge point 17, so that the forces coming in from the drum go through the diagonal and vertical members in such a manner as to put load at 17, which is resisted by the reaction from the derrick.

(Testimony of Cleon James Moon.)

Q. Then do the members, that is, the diagonal member which attaches to the bracket 26 and the vertical member which meets it at its apex and is attached to the chassis, and the cross member therefrom to the verticals 14 and 15, cooperate with the legs to carry the load to the ground?

A. Yes, they do.

Q. How many of such cooperating members are there? [86]

A. In this design there would be six. There are three on each side.

Q. Three on each side of what?

A. Of the cab, or of the driver's position, which happens to be synonymous.

Q. Synonymous with what?

A. With the cab. The driver's position and the cab in this design could be treated as the same thing.

Q. Does the driver's position occupy the entire cab?

A. Yes, it does, from the front of the cab to the rear of the cab.

Q. How about transversely?

A. Not transversely. The driver's position is located between the supporting members, which have been previously described. The supporting members are spaced transversely apart with respect to the driver's position. [87]

Mr. Subkow: Your Honor, may we have a moment of appraisal here?

The Court: Yes.

(Testimony of Cleon James Moon.)

Q. (By Mr. Subkow): Now, I believe we haven't mentioned how this derrick moves about and gets all this power to do all this job.

Where is the power unit?

A. The power unit is an internal combustion engine, in most designs, which is located at the rear of the vehicle.

The Court: Is that the same engine which propels the vehicle itself?

The Witness: Yes. We make the same engine do all the jobs that the unit has to do. The engine is identified as 4 in the Figure 1 of Exhibit 1, and again as 4 in Figure 6 and Figure 7. We locate the engine in that position, and drive forward through a transmission system, a transfer case, right-angle gear box, to drive the hoist—the transfer case being used to drive the vehicle over the road.

The engine drives the drums, the hoist drums, through the right-angle gear box when hoisting operations are in progress.

Q. (By Mr. Subkow): Now, Mr. Moon, after you formulated and made your invention on December 12, 1946, what did you do about it?

A. We found a manufacturing firm interested in manufacturing [88] the design and putting it on the market. So, early in 1947 we made an arrangement with them, by agreement, permitting them to manufacture, under license, the design.

We hoped at that time to cover by patents a number of the features of this type of design. And we immediately started work running through the ac-

(Testimony of Cleon James Moon.)

tual shop design of the first of these units. For reasons of economy we decided to make the first one rather small—large enough to handle, oh, 3500 foot production. We decided to make it a 65 telescoping mast with a 160 horsepower internal combustion engine.

The Court: Well, what does the depth of the well have to do with the size of the mast? The length of the casing sections or——

The Witness: No. The casing comes in standard sizes.

The Court: That's my understanding.

The Witness: But you pull the tubing either in singles or doubles.

Now, if you pull it in doubles you have to have a mast of nearly 90 feet in height to get enough room to get the blocks in there and——

The Court: It's a time and labor factor.

The Witness: Yes, that's right. Additionally, as the well gets deeper, the weight gets greater because you have to [89] lift that much more pipe.

So, we started out with a mast that was 65 foot in height, and which would handle singles and which had a 90,000 pound hook load capacity, which was great enough to handle wells up to 3500 feet.

That also has an effect upon the horsepower that you select because you have to have sufficient horsepower to pull the well at a reasonable rate.

Now, the first thing we had to do was to lay out that particular unit and run a load and stress analysis upon the various members that were involved,

(Testimony of Cleon James Moon.)

the various items that were involved, the derrick, the drums and all the—the chassis and running gear—all the parts that were subject to stress.

Q. (By Mr. Subkow): Mr. Moon, when you started this design you joined the Waldrip Engineering Company as a vice-president of the company in charge of this project, did you not?

A. Yes, that's right.

Q. Did you still retain your office as president of the Western Oil Tool & Engineering Co., Inc.?

A. Yes, I did.

Q. When you made that design, what knowledge did you have as to that this design actually will produce a legal unit and would be useful for the purposes for which it was [90] intended?

Mr. Kenway: I am sorry. I couldn't hear that question. May I have it?

The Court: Please read it, Mr. Reporter.

Mr. Subkow: I would be grateful if it was called to my attention—I have a tendency to drop my voice. Or, I shout too much. So——

The Court: Well, there's an amplifier back there on the lectern.

Mr. Subkow: I will return there for a while, if it will help at all.

The Court: No. I think we can all hear you.

Mr. Kenway: This is the only question that I couldn't hear.

The Court: Please read it, Mr. Reporter.

(Question read.)

The Witness: As the design progressed we ran

(Testimony of Cleon James Moon.)

weight estimates upon all the items that were going into the machine. And we arranged these in such a fashion that they would be functionally adequate and, at the same time, properly load the wheels. As the design progressed, we found that in some instances we were getting a little too heavy on the front wheels or the rear wheels, so that we would shuffle them back and forth.

This design took over a year to finish, and, actually, [91] at that time I think I had between six and eight men working on it.

It appeared early in the design that we might have some troubles with being overloaded on the front wheels. Also, we had the problem of forward overhang staring us in the face, but we thought we had that solved by just making the extensions of the legs longer.

Q. I will accept the answer, but it was not quite responsive to my question. My question was, at the time that you made the invention in December 12, 1946, what assurance did you have, what knowledge did you have that the design that you had then laid out would produce a legal unit and be useful for the purposes for which it was intended?

A. Well, we couldn't be sure that that design would meet the legal weight requirements.

Q. Do I understand that you had to go through these other design features and analyses in order to determine that point? A. That is correct.

Q. You referred in your previous answer to the

(Testimony of Cleon James Moon.)

fact that you came to a point where you were going to make some change in your specific design.

A. That's right. [92]

Mr. Subkow: I hand you a large drawing, which is Exhibit No. 23——

Your Honor, this is one drawing we did not reduce. It's so large—may I have some help from someone in holding it?

I think we can all see. May we come close to your Honor?

The Court: Yes.

Mr. Subkow: Can you see it from here?

The Court: Yes, I can see it.

Mr. Subkow: Now, if you will explain—well, I think I need my whole team. Max, if you will hold the other side and, Ed, if you will be the pointer. As the witness explains it, you point to the features.

The Witness: Well, would it be all right if I stepped down?

The Court: Yes.

The Witness: Thank you, your Honor.

Mr. Subkow: Here's a pointer, Mr. Moon.

Well, may we move the big easel over here, and then we will all avoid this dramatic spectacle. I think we can staple it on here without disturbing anything.

The Court: Or, you can put it over it.

Mr. Subkow: Yes. Let's move it over here.

The Court: Do you offer Exhibit No. 23 in evidence?

Mr. Subkow: I was going to identify it. It has

(Testimony of Cleon James Moon.)

no date, [93] your Honor, and perhaps we ought to have some identification by the witness before we offer it.

The Court: Has Exhibit No. 22 been received in evidence?

Mr. Subkow: No, sir. We have not yet reached that point, your Honor.

The Court: Very well.

Mr. Subkow: Would you get out, for the court's benefit, Exhibits 27, 28 and 29?

(Whereupon exhibits were handed to counsel.)

Mr. Subkow: I think explanation will be more lucid by reference to these photographs, which are photographs of the units which are shown on there. And I think the whole story will be more graphic.

The Court: Well, I think we might as well take the recess until tomorrow morning.

We will take the recess until tomorrow morning at 9:30, if there is no objection.

Trial will be recessed until tomorrow morning at 9:30.

(Whereupon at 4:30 o'clock p.m., an adjournment was taken until 9:30 o'clock a.m., Wednesday, March 26, 1958.) [94]

Wednesday, March 26, 1958, 9:30 a.m.

The Court: Are there any ex parte matters?

The Clerk: No ex parte matters.

The Court: You may proceed with the cause on trial.

Mr. Subkow: Your Honor, preliminarily I wish to make a motion for the correction of the transcript of the record. The record is very clean, but there are a few places——

The Court: Can't you gentlemen stipulate on them? Why don't you try to do that at some recess? Are there a number of them?

Mr. Subkow: Oh, no. There are only five places, I believe, and that is all.

The Court: Have you discussed it with counsel?

Mr. Subkow: No. They just arrived.

The Court: Then suppose you do that and save time.

Mr. Subkow: All right. Before I go on, your Honor, I understand that in the present proceedings we are trying the issue of validity only, and that we are not to put in testimony with respect to infringement.

The Court: If that is practicable. Of course, if you have a witness on the stand and you don't want to call him back, perhaps later, we will take all of his testimony, but I would not think you would need to go into any of that with Mr. Moon. He will be here in any event, I take it? [98]

Mr. Subkow: Yes.

The Court: But as to any other witness, where it would be inconvenient for him to return, say, on Thursday or Friday, it will be all right for you to complete your evidence.

Mr. Subkow: I will raise this point a little later this morning, when I come to another aspect of the

proceedings, as to the order of proof, but at the present time we will go on with Mr. Moon.

The reason I ask your Honor is that in connection with the issue of infringement, I was going to discuss, or, rather, I was going to have the witnesses discuss, your Honor, the forces that occur in the structure, and I was going to apply them to the defendants' structure, and show the similarity.

However, if we are going to try the issue of validity, I would like to have that before your Honor, and, therefore, wish to use as demonstrative evidence a chart we have prepared, applied to the defendants' structure, which we could use in this connection to further explain the forces.

I have discussed it with opposing counsel, and I think that the limitation of proof could result.

The Court: When a witness is on the stand, I would exhaust him if it is practicable to do so.

Mr. Subkow: Subject to your indulgence to recall him if I should have forgotten something.

The Court: Yes. [99]

Mr. Subkow: Thank you, sir.

Then may Mr. Moon take the stand?

CLEON JAMES MOON

the witness on the stand at the time of the adjournment, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Subkow): At the termination of the proceedings last night we were discussing Ex-

(Testimony of Cleon James Moon.)

hibit 23. Before taking up Exhibit 23, I should like to revert to another matter. During the period of your design, did you prepare any documents in the nature of a brochure for your organization?

A. Yes, we did.

Mr. Subkow: May I have your Honor's permission to withdraw from the Moon deposition Exhibit 8?

The Court: You may. Exhibit 8 to that deposition?

Mr. Subkow: 8 of that deposition. [100]

The Court: Very well.

Mr. Subkow: It will be numbered Exhibit No. 22.

The Court: Very well. The clerk will withdraw Exhibit 8 from the Moon deposition and number it Exhibit No. 22 for identification here. The Waldrip brochure?

Mr. Subkow: Yes, sir.

Mr. Lyon: That is listed and has been marked by the clerk as Defendants' Exhibit H, and will be so offered by the defendants, unless Mr. Subkow is going to anticipate——

Mr. Subkow: Oh, I don't care how it gets in.

The Court: Well, do you wish to offer it now as Exhibit H?

Mr. Kenway: Yes, your Honor.

The Court: Is it stipulated to be genuine and in all respects what it purports to be?

Mr. Lyon: There is a stipulation covering it.

The Court: Any objection to the offer?

(Testimony of Cleon James Moon.)

Mr. Subkow: Not at all.

The Court: We will receive Defendants' Exhibit H. And I assume you can use it in that posture.

Mr. Subkow: Yes, your Honor.

(The exhibit referred to, marked Defendants' Exhibit H, was received in evidence.)

Mr. Subkow: Will you hand it to his Honor?

(Whereupon the exhibit was handed to the court.) [101]

Mr. Subkow: Oh, your Honor, we supplied it also to the clerk as our Exhibit No. 22. May we withdraw it so we can use it?

The Court: Yes. Exhibit No. 22 for identification may be withdrawn.

(The exhibit previously marked Plaintiffs' Exhibit 22 for identification was withdrawn.)

Q. (By Mr. Subkow): Will you state what this document is, Mr. Moon?

A. That is a collection of drawings and specifications prepared for use in the Waldrip organization showing our various managing personnel the types of units we propose to design and build.

Q. Were these people under any injunction to keep this matter confidential?

A. It was information that was supposed to be held confidential within the company. If any portion of it was shown to a prospective customer, it was shown as a confidential matter.

Q. I notice that the first section is marked 321.

Mr. Subkow: Your Honor, we only have one

(Testimony of Cleon James Moon.)

copy. May I stand next to the witness so I can see it, too?

The Court: Yes, if you wish.

Q. (By Mr. Subkow): What does index 321 designate?

A. The 300 series, which is indicated by the 3, [102] indicated a certain size of machine. The 2 and the 1 indicate that it was a self-propelled model, a drive-in type.

We had proposed to use other numbers for skid types and conventional truck-mounted types if we ever built them.

Q. Then 321 represents one size of the drive-in unit, and 421 represents what?

A. It represents a second size of the drive-in unit, with a slight increase in size.

Q. 521?

A. That is an increase in size, also. And it is a drive-in unit.

Q. 622?

A. 622 was a trailer-mounted unit of the larger size. Here you will note that the last two numbers are 22 rather than 21. We used the number 22 to indicate trailer-mounted models.

Q. Now, were any units of these units built?

A. Yes.

Q. Of this series? Which ones?

A. The 321 was built, two models of it. The 421 was built with two separate sizes of mast. And the 622 was built.

Q. Was the 622 a drive-in unit?

(Testimony of Cleon James Moon.)

A. The 622 was a semi-trailer unit and was not a drive-in unit.

Q. What kind of a unit was it? [103]

A. Semi-trailer unit powered by a separate hoist engine and transported by a separate truck tractor, which pulled the unit over the road and backed the unit into location. It is a back-in unit.

Mr. Subkow: If your Honor will turn to the back of the section, you will find a drawing of this kind. The pages are unnumbered.

The Court: What section is that under, now?

Mr. Subkow: That would be under the 622 section.

The Court: 622. I have it. The end of it here.

Mr. Subkow: Yes.

The Court: Very well.

Q. (By Mr. Subkow): Does this drawing illustrate the structure you were referring to?

A. Yes, it does.

Q. I am now turning to a drawing under the 622 section, and I believe it's the only drawing, if I am correct, of such a unit. Is that correct?

A. Yes, that is correct.

Q. Now, at the end of the session yesterday you were starting to describe the structure shown in Exhibit 23, and which we have mounted on the board.

Mr. Subkow: Your Honor, I don't know. This is sort of far away. I don't know whether you will be able to see it. May we bring it closer to you?

The Court: Yes. I can see those lines.

(Testimony of Cleon James Moon.)

Mr. Subkow: Can you? Can you see these features back here (indicating)?

The Court: Well, not in great detail.

Mr. Subkow: Well, the detail may be of some significance. We may ask your Honor to step down if it is not contumacious to suggest it.

The Court: Oh, no. I want to learn.

Mr. Subkow: I hand the witness a crayon and I ask him to mark portions of the structure.

Q. (By Mr. Subkow): Now, will you describe what you did and the purpose for which you designed this feature into your drive-in?

Mr. Kenway: If your Honor please, it doesn't appear from the record just what this was supposed to be. Does it represent something that was supposed to have been built in accordance with the patent? Or if not is this a preliminary leading up to what is shown in the patent.

I think it would be helpful——

Mr. Subkow: Perhaps the witness' testimony will clear that up.

The Court: Very well.

Q. (By Mr. Subkow): Go ahead, Mr. Moon.

A. When we started——

Mr. Subkow: May I stand closer, your Honor?

The Court: Yes.

When was this made, Mr. Moon?

The Witness: This drawing was made—there is no date. I will have to——

The Court: Does it represent some device that is current now, or some earlier stage?

(Testimony of Cleon James Moon.)

The Witness: It represents a stage in the development of our drive-in. As I recall, this drawing——

The Court: Before 1947?

The Witness: I believe it was probably in February of 1947.

The Court: Very well. You may proceed.

The Witness: When we started the layout of the drive-in, the 321 drive-in, we originally were faced with a problem of making the wheel loading at the front and rear wheels comply with highway regulations. We had determined that not only this unit but all of our drive-in units would comply with highway regulations.

We had two problems: the problem of getting all of the weight, the mast, the drums, the engine, the transmission, raising system, the extras such as the air compressor, tankage and air compressor, located along this frame in such a manner as to provide legal wheel loading. Additionally, we had one other problem, and that was to keep the distance here within three feet of the front bumper.

Now, as our design continued, our preliminary design continued in the early months of this development, and our first layouts were made, it appeared that we might have a little difficulty keeping the front wheel loading legal. Also, it appeared that we might have some tire difficulty, because we actually exceeded the tire manufacturer's loading a modest amount, and it appeared that we might

(Testimony of Cleon James Moon.)

exceed them considerably more. Only road tests would prove where we stood.

However, to prevent being illegal, we decided to slide the mast back and forth on this chassis, and in such a manner that when we went over the road the mast would be slid to the rear in such a way as to provide legal wheel loadings and practical wheel loadings. [107]

When we arrived at the location, we slid the mast forward on a track. We didn't have it here (indicating). We slid it forward to a fulcrum point, and fulcrumed it off of the front end of the cab.

That brought this point up to here (indicating), and enabled us to erect the mast so that when the legs rotated about the point back here, they nearly reached the ground. After they nearly reached the ground, we extended them so that they did reach the ground by means of a screw, the screw in the jack right here (indicating), which is not shown.

Now, after we got into the design further on, actually——

Mr. Subkow: Just a moment. I think that that would be clearer perhaps if we offered at this time Exhibits 28 and 29. These exhibits have been, I believe, in the affidavits. Does our exhibit list show that they have been previously——

The Court: Is there any objection to the offer?

Mr. Subkow: I believe they have been.

The Court: Any objection to the offer of the two photographs?

(Testimony of Cleon James Moon.)

Mr. Subkow: While the list does not show them, I believe they were in the Moon affidavit.

The Court: Any objection?

Mr. Lyon: No objection.

Mr. Kenway: No. [108]

The Court: Exhibits 28 and 29 are now received in evidence.

(The photographs referred to was marked Plaintiffs' Exhibits 28 and 29 and received in evidence.)

Q. (By Mr. Subkow): When using these exhibits, please in discussing them refer to the exhibit number. Will you continue with your explanation?

A. Exhibit 28 shows the mast slid to the forward position prior to erection.

Now, we had a track built in to the lower section of the mast, which is not shown in the photograph, and I will mark it 1.

Would your Honor like to see?

The Court: What exhibit is this?

The Witness: This would be Exhibit 28.

The Court: 28?

The Witness: Yes.

The Court: That appears clearly on Exhibit 29 also, does it not?

The Witness: Yes, it does, and if you would like, I will mark it there also with the figure 1.

There was one of these tracks on each side of the rear mast leg. Located at the front end of the vehicle was a fulcrum bar with a square block. That is at the top of the cab, and immediately below

(Testimony of Cleon James Moon.)

that bar is a latch. The latch is secured to the vehicle. When that latch is pulled down, it permits the derrick to be retracted rearwardly, so that it is positioned back. We accomplish that by extending a hydraulic cylinder. When we wanted to return it to its front position prior to erection, we pulled it with a line around the traveling block. We anchored the traveling block at the mast, came around the crown, and back around over the top of the guard structure of the hoist, around the guide, and down to the drum. We did that in such a manner that the force applied to the block system, when it was locked, would force the mast over on the track. We built two of those.

Mr. Subkow: Will the clerk please hand to your Honor Exhibits 24, 25 and 26?

(Thereupon the documents referred to were handed to the court.)

Mr. Subkow: May we have a stipulation that these are authentic records made in the ordinary course of business, and they will be admitted under the business book rule?

Mr. Kenway: I have no objection as to their genuineness, but I question their materiality.

Q. (By Mr. Subkow): I hand you Exhibit 24, and ask you in a general way to state what this exhibit shows.

A. This is an engineering release record of the 321-1. That would be the first 321 built, showing the dates [110] that shop drawings were released

(Testimony of Cleon James Moon.)

to the Waldrip Production Department, who, in turn, released them to the shop for manufacture.

Q. I notice that the first one is entitled "Main Drum," and has a release date of 12-18-47, and that these releases continue under the release date, and I also see some designations saying "Done," and other indications under the column of "Engineering." Will you state what that means?

You may resume the stand, Mr. Moon.

A. That is——

Q. You have your own exhibits there, I believe, 24, 25 and 26.

A. Referring now to Exhibit 24 previously described, the release dates in some instances do show that the engineering had been finished, and in the second column under "Release" had been released to the shop.

Q. I notice at the right-hand top of each page is a date. The first page is 2-19-48, and the third page 3-16-48. Will you indicate what that date represents?

A. That was the date that these sheets were prepared. These sheets were prepared at regular intervals to show the progress that was being made in engineering and in manufacturing when we were building the first two units.

Q. I call your attention to the last page preceding [111] the photographs, and I read, "In view of above facts I feel doubtful that the unit can be sent to the yard Saturday as planned." The Sat-

(Testimony of Cleon James Moon.)

urday refers to what date? I call your attention to the third preceding page.

A. This memorandum is dated March 25, 1948.

Q. Can you state the circumstances of that statement?

A. Yes. It was directed to the plant manager, Mr. Summerstrom, from one of my engineers who was acting as my assistant and later was the chief engineer, C. A. Forsberg. It was an explanation concerning the state of manufacture and of engineering of the first 321.

Q. I notice what may or may not be your initials below the "C.A.F." Are they or are they not?

A. No, that is Cliff Summerstrom's initials.

Q. I see. My print is very unclear. Now, turning to Exhibit 25, will you tell us what that exhibit indicates?

A. Referring now to Exhibit 25, that is the same type of engineering release information on the second 321, and it is dated March 19, 1948.

Q. Was it completed before or after the 321-1?

A. They were progressing through the shop at almost the same time. Perhaps the second one was as much as a week later, at this particular period of manufacture.

Q. I call your attention to the 421-1, Exhibit 26. [112] Will you state what that exhibit indicates?

A. Exhibit 26 is the same type of release, applied to the first 421 which we were building, and which very closely followed the first and second 321 models.

(Testimony of Cleon James Moon.)

Q. The dates given in the upper right-hand corner of the pages of both Exhibits 25 and 26 indicate what?

A. That these sheets were prepared and shown to managing personnel on March the 19th, 1948.

Q. Now, was Model 421, or, did Model 421-1 contain this sliding feature of the derrick?

A. It did at the beginning. However, in our road testing of the first 321, we discovered that the wheel weights at the front were not as bad as we thought they would be. [113]

Mr. Subkow: Will you pick out Exhibits 36, 37, 38 and 39 and give them to his Honor?

(Whereupon the documents were given to the court.)

Mr. Subkow: May we have the same stipulation with regard to the authenticity of these documents, that they were prepared in the ordinary course of business on the dates indicated on the very sheets, and constitute evidence admissible under the rule?

The Court: Any objection as to the offer of Exhibit Nos. 24, 25, 26?

Mr. Kenway: He dropped his voice at the end, your Honor. I couldn't hear what he said.

Mr. Subkow: We are talking now about Exhibits 36, 37, 38 and 39.

The Court: Are you offering Exhibits Nos. 24, 25 and 26?

Mr. Subkow: I thought they went in. I am sorry. Certainly I offer them. I thought there was a stipulation.

The Court: Any objection?

(Testimony of Cleon James Moon.)

Mr. Kenway: I object to them as not being material. And there was no offer, as I understand it.

The Court: Is there any objection to foundation?

Mr. Kenway: No, sir, just on materiality. I don't question the genuineness.

The Court: Well, they were offered as business records under the business record statute, and if there is no objection [114] they will be received—if there is no objection on that ground they will be received. The objection as to immateriality will be overruled.

Exhibit Nos. 24, 25 and 26 for identification are now in evidence.

(The exhibits referred to, marked Plaintiffs' Exhibits 24, 25 and 26, were received in evidence.)

The Court: Now, with respect to Exhibit Nos. 36, 37, 38 and 39—

Mr. Subkow: Yes, sir.

The Court: —are they in the same category?

Mr. Subkow: I am offering them in the same category.

The Court: Any objection for lack of foundation?

Mr. Kenway: No, your Honor.

The Court: They may be received in evidence.

(The exhibits referred to, marked Plaintiffs' Exhibits 36, 37, 38 and 39, were received in evidence.)

Q. (By Mr. Subkow): Will you state what each of these exhibits are, stating them each separately?

(Testimony of Cleon James Moon.)

A. Referring to Exhibit No. 36, this is a progressive weight analysis of the second 321, which is dated March 22, 1948.

Q. And will you state what that record shows?

A. Yes. As we proceeded with the manufacture, we weighed or made very close weight estimates concerning the weight of the individual components. Then we calculated the effect that the placement of those items would have upon the wheel loads. That is shown as the moment in inch pounds in the right-hand column.

Q. Of what page?

A. Of page 1 of the 321-2 weight analysis, Exhibit No. 36.

Q. Does this exhibit show any further analysis of the effect of those weights upon the axles of the structure?

A. Yes, it does. I believe that on the last page—that would be page 4—it shows the loads on the rear wheels and the loads on the front wheels.

Q. Will you state what those loads are?

A. The total calculated on the rear was 30,717 pounds—

Q. On what page is that now?

A. On page 4 of Exhibit No. 36.—and 11,986 pounds total front load on the front wheels, with a gross total of 42,703 pounds.

Q. What does that indicate with regard to its conformance with the load requirements of the California statute as to which you testified yesterday?

(Testimony of Cleon James Moon.)

A. It indicates that it is within the legal limits of the California Highway Code. [116]

Q. As far as you know would it be in the legal limits of other states?

A. I cannot answer that question without reference to some of the codes. I do not know.

Mr. Subkow: It is an unfair question, I think.

Q. (By Mr. Subkow): Exhibit No. 37, can you state what that exhibit is and shows?

A. Exhibit No. 37 is a similar exhibit applicable to the first 421 drive-in unit. The same information is presented here as was presented for the 321-2. And on page——

Q. The fourth page, Mr. Moon?

A. ——4 of Exhibit 37 is shown a weight analysis that shows 30,917 pounds on the rear axles and 13,077 pounds on the front axles, for a gross total of 43,994.

Q. Turning to Exhibit 38, and to the last page of that exhibit, I notice an initial at the lower right-hand column, "J.M." Is that your initial?

A. Yes, it is.

Q. When was it placed upon the record?

A. Shortly after I received the record on March 29, 1948.

Q. Did you receive the record on the preceding four pages? A. Yes, I did.

Q. Is the "J. Moon" appearing at the top of the first [117] page you? A. Yes.

Q. And you received it when?

A. I received that page on the date that it was written, April 1, 1948.

(Testimony of Cleon James Moon.)

Q. You said "that page." Did you receive also the following three pages?

A. No. I believe the following three pages—yes. The following three pages were received at the same time. They are all part of the same memo.

Q. How about the fourth page?

A. The fourth page was prepared by me on March 3, 1948 and had been delivered to Mr. Denis, who had superseded Mr. Summerstrum as plant manager.

Q. Will you state the circumstances of the preparation of these documents?

A. Well, as can be seen from Exhibit 37, page 4, we had a total rear weight on the first 421 of 30,917 pounds. At that time we were allowed——

Q. I beg your pardon. You were referring to Exhibit No. 37?

A. Exhibit No. 37, page 4.

Q. Yes.

A. We had a total rear weight of 30,917 pounds. That meant we were overweight 117 pounds, because the California [118] Code at that time for the axle spacing which we used permitted us 30,800 pounds.

Consequently, we decided to try out some weight-saving measures.

You will note that in the middle of page 5 of Exhibit 38, that the weights mentioned on page 4 of Exhibit 37 read:

"421-1—unchanged:

"Rear—30917——"

(Testimony of Cleon James Moon.)

Mr. Subkow: I am sorry. I have lost that. Will you repeat that statement?

Mr. Reporter, will you read the answer so far?

(Record read.)

Q. (By Mr. Subkow): You may continue.

The Witness: "Rear—30917.

"Front—13077.

"Note: This is over-legal on rear axles (the maximum allowable is 30,800 pounds).

"Present changes being started are:

"A. Shifting power unit assembly forward—12 inches.

"B. Moving rear axle assembly back—8 inches.

"The axle loadings then will be:

"Road position——"

That is with the mast slid rearward as I explained [119] previously.

"Rear: 29,917 pounds.

"Front: 14,077 pounds.

"Erecting position:

"Rear——"

That would be with the mast slid forward for erection,

"Rear: 27,217 pounds.

"Front: 16,737 pounds." "

Now, there is a comment there, "This overloads the front axles and tires. A cautionary note will be fastened to the dashboard of the vehicle to this effect. An over-all re-analysis will be made as time permits for gross weight reduction for our standard model starting with 421-2 unit."

(Testimony of Cleon James Moon.)

When we road-tested these units we found that while the tire loadings were beyond the manufacturer's recommendation—and that was what was referred to in “this overloads the front axle and tires”—it was not overloaded as far as the legal code was concerned, because we were allowed 18,000.

But we were afraid of the tire capacity. However, after extensive road testing of these vehicles we decided that we could tolerate that overload with considerable safety. We also discussed the matter with tire manufacturers and discovered that the actual burst pressure of the [120] tires was five times the rated capacity and that the only effect would be reduced tire life. They had no reservations concerning the safety of the tires at that loading. However, these vehicles in their entire life might accumulate less than 10,000 miles of travel, since they are moving relatively short distances, from well to well or field to field. Consequently, we accepted these wheel loadings and we even went further: we decided at that time, or shortly thereafter when we built the—when we finished the first 421-1, to eliminate the sliding track. We had had some difficulty with it in testing. And we wanted to change the first 421-1 before it was released to the customer.

Q. Before we go into that I just want to complete the presentation of this group of exhibits.

Now, will you refer to Exhibit No. 39, and will you state whether the “J. Moon” refers to you, and whether you placed your signature at the top of that?

(Testimony of Cleon James Moon.)

A. The "J. Moon." applies to me. However, I did not place that on there. That was placed on there so that I would see it. [121]

Q. Did you see it? A. Yes, I did.

Q. When did you see it?

A. At the time of the date on the sheet, or near the time. That would be April 29, 1948.

Q. Will you state what this exhibit shows?

A. Yes. That shows that our first 321, which at that time had been road tested and weighed, and was very close to being ready for delivery and first testing, had an actual scale weight of 31,050 pounds on the rear, and 15,220 pounds on the front wheels, with a gross of 46,270 pounds for the complete loaded unit.

Q. You are referring to Exhibit 39?

A. Exhibit 39.

Q. In what position was the derrick at that time?

A. The derrick was in this memo nine inches forward, and, frankly, I don't know what is meant by "nine inches forward." It may have been a position selected on the track to determine where, if we went to a fixed hinge point, we should place that hinge point to properly load the wheels.

Q. On the left-hand side I see a box in which there are loads: Rear, 26,900; front, 13,420; 40,320 unloaded. What does that represent?

A. That represents the difference between the loaded unit and the unloaded unit. The unloaded unit was the [122] weight empty, without sand

(Testimony of Cleon James Moon.)

line, and without fuel, and without the extras that commonly were applied at that time to the unit.

To the right-hand side it shows the same weights, front and rear and gross for the unit when it was loaded, with the items necessary and previously mentioned for use at the well head.

Q. Do I understand you to say these are actually weighed weights, and not theoretically calculated weights?

A. The top weight at the top of the page of Exhibit 39 is an actual scale weight.

Q. The gross, 46,270, is that the one you are referring to?

A. Yes, the gross 46,270. The rest of the weights I don't know. I judge from their appearance on these sheets they are actually calculated weights based upon knowledge at the time.

Q. Who is "B.P.B.," whose initials appear under it?

A. That is Benjamin P. Baylass, who was a vice-president in Western Oil Tool and Engineering Company at that time, and who was acting as an assistant to me upon this project.

Mr. Subkow: May I ask the clerk to present to the court Exhibits 30 and 31.

(The documents were handed to the court.)

Mr. Subkow: First, may I have a stipulation that—excuse me. I think the examination will bring out the feature, and then I will introduce them.

Q. Will you state what the photographs, Ex-

(Testimony of Cleon James Moon.)

Exhibits 30 and 31, show, identifying the exhibits in your answer.

A. Exhibit 30 is a photograph taken of the first Waldrup 321 drive-in during the final stages of manufacture.

Q. Can you identify the parts on that photograph, using again the crayon, and will you be so good as to mark the judge's copy as well?

Will you first mark the parts you are going to discuss, all of them, and then we will return the exhibits to his Honor, so that he will have them before him during your testimony.

(The witness does as requested.)

Q. Now, having done that also for opposing counsel, will you do that as well for me?

(The witness does as requested.)

Q. Have you handed to his Honor the marked exhibits? A. I have.

Q. Fine: Continue with your testimony, Mr. Moon.

A. Now, referring to Exhibit 30, this is a view taken looking rearward from the cab, with the photographer's back to the cab, and shows——

Q. Just a moment. When was it taken, Mr. Moon? [124]

A. I took this photograph some time during April of 1948.

Q. Continue.

A. I would like to correct that. It was taken some time during February of 1948.

Q. What makes you choose the date, Mr. Moon?

(Testimony of Cleon James Moon.)

A. This was taken about the time that we ran our first road tests, and that occurred some time during that month. We ran the first road test without the derrick on it, and without the sheathing on it, the guard, and I am sure that I took some photographs at that time of the unit.

Q. Continue, sir.

A. It shows, in the order of their occurrence rearward, the main or front hoist drum.

Q. What number is that?

A. Which is No. 1. It shows the right angle drive to the hoist from the engine, and that is 2. It shows the sand rail drum 3. It shows the torque converter and transmission assembly 4, and it shows the engine 5, and it shows the track rail for the rear derrick support for the sliding type of mast at 6.

Mr. Subkow: I offer Exhibit 30 in evidence.

Mr. Kenway: No objection.

The Court: Received in evidence.

(The exhibit heretofore marked Plaintiffs' Exhibit 30 was received in evidence.) [125]

Q. (By Mr. Subkow): Will you now state who took the photograph, Exhibit 31, and when?

A. I did, and it was taken on the same date that I took photograph 30—shown in Exhibit 30.

Q. What does the exhibit show?

A. Again reading rearward from the left, it shows the main drum——

Q. Is it of the same unit of which Exhibit 30 is a photograph?

(Testimony of Cleon James Moon.)

A. It is the same unit. It is the first 321 drive-in built by Waldrip.

Q. Go ahead.

A. Reading rearward from the left, it shows the main drum 1, the countershaft extending outwardly from the right angle gear box 2, the sand rail drum 3, the torque converter and transmission 4, the engine at the rear 5, and the track overhead to spot the mast when it is slid backwards and forwards 6.

Q. Referring to Exhibit 1, will you identify in Exhibit 1 the features which you have numbered 1, 3 and 5? That is the patent, Mr. Moon.

A. Yes, I understand. I have it here.

The Court: Identify them on one of the Figures in the drawings?

Mr. Subkow: Yes, referring to the figure upon which [126] you are making your identification.

The Witness: Now, referring to Exhibit 30 and Exhibit 31, compared to Exhibit 1, in Exhibits 30 and 31 the main drum 1 is the same as the main drum 7 in Figure 1 of Exhibit 1.

The Court: 7?

The Witness: Yes, 7. Referring again to Exhibits 30 and 31, the right angle gear box 2, which is shown in Figure 2 in the plan view and is unnumbered——

Q. (By Mr. Subkow): Where is it positioned?

A. Positioned between the front and rear drums.

The Court: Between 6 and 7?

The Witness: Between 6 and 7.

(Testimony of Cleon James Moon.)

The Court: Are the drums reversed in Figure 1 of the patent?

Mr. Subkow: Your Honor, the photographs are reversed to the drawing. The photographs show the engine to the right, whereas the patent shows it to the left.

The Court: Yes, I see. [127]

Q. (By Mr. Subkow): Go ahead, sir.

A. Again, referring to the comparison, item 3 of Exhibits 30 and 31, is item 6 of Exhibit 1 shown in Figure 1. Item 4 of Exhibit 30 and 31 is shown in Figure 1 of Exhibit 1 as dotted lines progressing frontward from the engine, and is the torque converter and transmission.

Q. Now, items that you have marked 2 and 4, were they invented by you, Mr. Moon?

A. No, they were not. They were common in the industry at that time. The Franks back-in units utilized a right angle gear box of similar design; and many manufacturers in the industry were familiar and used torque converter and transmission means to drive the hoist.

Mr. Subkow: I offer Exhibit 31 in evidence.

Mr. Kenway: No objection.

The Court: Received in evidence.

(The exhibit referred to, marked Plaintiffs' Exhibit 31, was received in evidence.)

Mr. Subkow: Mr. Moon, will you now turn to Exhibits 32, 33, 34 and 35.

The Court: Those are photographs?

(Testimony of Cleon James Moon.)

Mr. Subkow: Those are also photographs, your Honor.

The Clerk: I don't have them.

Mr. Subkow: Well, because they are parts of other records that you have. They are identified as 32, 33 and 34—those are Exhibits 5, 6 and 7 of the Moon affidavit. [128]

And may they be withdrawn from that affidavit for use here?

The Court: Yes, they may. The clerk will withdraw them and renumber them as filed exhibits for identification.

(The exhibits referred to were marked Plaintiffs' Exhibits 32, 33 and 34 for identification.)

Mr. Subkow: Now, the only one that we don't have is Exhibit No. 35, Mr. Clerk?

The Clerk: You do have No. 35 here.

Mr. Subkow: Then we have all four of them.

The Clerk: Yes.

(The exhibit referred to was marked Plaintiffs' Exhibit 35 for identification.)

The Court: May it be stipulated that these photographs fairly depict what they purport to depict?

Mr. Kenway: I have no objection.

The Court: Do you offer them in evidence?

Mr. Subkow: I offer them in evidence.

The Court: Exhibits 32, 33, 34 and 35 are received in evidence.

(The exhibits referred to, marked Plaintiffs' Exhibits 32, 33, 34 and 35, were received in evidence.)

(Testimony of Cleon James Moon.)

[See Exhibits 33, 34 and 35 in Book of Exhibits.]

Mr. Subkow: You are having some trouble finding them, Mr. Clerk? [129]

The Clerk: Yes.

Mr. Subkow: The affidavit is part of the record as part of the motion for summary judgment.

The Clerk: It is in that red folder, and they are all contained——

The Court: Well, take them out of mine.

Mr. Subkow: We can supply you another set.

The Court: If you gentlemen wish to make use of that red folder, you may do so.

Mr. Subkow: We have extra copies if you wish to use them, your Honor.

The Court: I made some study of those matters on the motion for summary judgment. I couldn't determine from the publications in the magazines whether they were the same device or not.

Mr. Subkow: That was our conclusion, your Honor. And that is a point that they were trying to make.

The Court: If I had the aid of some expert to point it out to me——

Mr. Subkow: We assume the situation may be different after this trial is completed. But we hope you will come to the same conclusion.

The Court: Very well.

We will take the morning recess at this time.

(Short recess.) [130]

Mr. Subkow: Has your Honor Exhibits——

(Testimony of Cleon James Moon.)

The Court: 32 to 35?

Mr. Subkow: 32, 33, 34 and 35. Those were the exhibits, except for Exhibit 35, which were a part of the Moon affidavit in the motion for summary judgment, and we have given you another set, and I am using your copy here, so that I can have it during the examination.

The Court: Very well.

Q. (By Mr. Subkow): Will you look at Exhibits 32, 33 and 34, and tell us what these photographs show. First, will you tell us when these photographs were taken and by whom?

A. The photographs were taken by me.

Q. When?

A. The photograph shown in Exhibit 32, which shows the first Waldrip 421 drive-in, was probably taken in July of 1948.

Q. And when were Exhibits 33 and 34 taken, and by whom?

A. Exhibit 33, which shows one of the Waldrip 421 drive-ins with a 90-foot mast, at Conroe, Texas, and was probably taken in May of 1949.

Q. By yourself?

A. By me. Exhibit 34, which is a 421 — no, I can't be sure. It is a Waldrip drive-in, but I am not certain which model it is. It would have to be the third or fourth [131] machine manufactured, and since it is of that type, it would have been taken either in July of 1948 or May of 1949.

Q. And Exhibit 35?

A. Exhibit 35 is the same unit—I would like to

(Testimony of Cleon James Moon.)

correct that. Exhibit 35 is another Waldrip 421, with a 90-foot mast. I don't recall the date that that machine was delivered, or when the photograph was taken. I believe the machine was the one sold to Pacific Western, and that the photograph was probably taken late in 1948 or early in 1949.

Q. Did you take this photograph?

A. Yes, I took all of these photographs, and this photograph, too.

Mr. Subkow: I notice that the list of exhibits fails to give the former identification of this document. It is Exhibit 9 of the Moon affidavit, and if it will be entered on the various lists, it will simplify reference.

The Court: Exhibit 9?

Mr. Subkow: Of the Moon affidavit.

The Court: Which is Exhibit 9?

Mr. Subkow: 35. I will offer these four in evidence.

The Court: These will be received in evidence, Mr. Clerk, as Exhibits 32, 33, 34 and 35.

Mr. Subkow: Now, if your Honor will hold them, I think the testimony will refer to them.

The Court: But I wanted the clerk to mark them in [132] evidence.

Mr. Subkow: Yes. I will wait.

(The exhibits heretofore marked Plaintiffs' Exhibits 32, 33, 34 and 35 were received in evidence.)

[See Exhibits 33, 34 and 35 in Book of Exhibits.]

(Testimony of Cleon James Moon.)

Mr. Subkow: Your Honor, my assistant tells me that I have overlooked an exhibit, Exhibit 27. It is not in evidence, and I would like to introduce this and interrupt at the moment to do so.

Q. Will you look at Exhibit 27, and tell us when you took that photograph, and what it shows?

A. Yes. Referring to Exhibit 27, this is the first or second Waldrup 321 drive-in, and the photograph was taken probably early in May of 1948.

Q. What does it show? Did you take it, Mr. Moon? A. Yes, I took the photograph.

Q. What does it show?

A. And it shows the first or second Waldrup 321 drive-in, with a four-legged 65-foot telescoping mast of the type that we have been discussing here this morning.

Q. In what posture is the derrick?

A. The mast is in the road position, that it has been slid rearward along the track by means of the hydraulic cylinder.

Mr. Subkow: I offer this in evidence, your Honor.

The Court: That telephone pole in the background is [133] not a part of the equipment, is it?

The Witness: No, the telephone pole belongs to the power company.

The Court: Any objection?

Mr. Kenway: No objection.

The Court: Received in evidence as Exhibit 27.

(The photograph referred to was marked

(Testimony of Cleon James Moon.)

Plaintiffs' Exhibit 27, and received in evidence.)

Mr. Subkow: I hope the comment does not mean that I am overdoing the identification of it.

The Court: I was just thinking that whoever took that photograph——

Mr. Subkow: Was a bad compositor?

The Court: ——takes them about like I do. I always come out with something like that in the background which spoils the picture.

The Witness: With all of the open country around there, I should probably have moved it forward a little.

Mr. Kenway: Do I understand that Exhibits 32 through 35 have been offered and received?

The Court: Yes.

Q. (By Mr. Subkow): Will you take these exhibits, Mr. Moon, and using them, describe the construction of these exhibits and the circumstances which led to their design? [134]

Preliminarily, strike that question, and I will ask you this question: Do these exhibits show a unit in which the sliding derrick previously discussed is employed?

A. May I ask which exhibits, Mr. Subkow?

Q. Forgive me. Exhibits 32, 33, 34 and 35.

A. 32, 33, 34 and 35 all refer to Waldrip drive-in units with a fixed hinge type mast.

Q. Where is the hinge positioned in this type of unit?

A. The hinge is positioned above the driver, and

(Testimony of Cleon James Moon.)

arranged so that one hinge is on one side of the driver, and one hinge is on the other side of the driver, in such a manner that when the vehicle is going over the road the legs straddle the driver.

Q. We will proceed further, but will you first describe in a general way the construction of this unit, and in doing so, contrast it with the construction of the units employing the sliding derrick.

A. In this respect reference should be made to the photograph shown in Exhibit 27, and to the print on the board over there, which I believe is Exhibit 23.

Mr. Subkow: Will you hand Exhibit 27 to his Honor?

(The photograph was handed to the court.)

The Witness: In Exhibit No. 27, shown on the derrick, is the derrick track which we have previously discussed.

The derrick has been slid rearward along this track to place it in the road position. Contrasting it, and comparing it in Exhibit No. 32, the hinge point has been fixed. The rear legs have been hinged so that they ride in front of the cab.

Mr. Subkow: Just a moment, Mr. Moon. May I ask you again to mark the features you are referring to on the drawing and on his Honor's copy?

The Witness: Very well. I need Exhibits 32 and 27.

(Whereupon the exhibits were given to the witness for marking.)

The Court: What do you wish the witness to

(Testimony of Cleon James Moon.)

mark? The hinge, Mr. Subkow? Do you wish the witness to mark the hinge, is that what you mean?

Mr. Subkow: He is going to testify about features. I thought if he would mark them at one time that it would save a lot of time. And then he can just go right ahead.

(Whereupon the copies were marked by the witness and given to the court.)

The Witness: Now, once again, comparing Exhibit 27 to Exhibit 32. In Exhibit 27 we show a track in the derrick, the track marked 1. It's in the lower section of the derrick, and is used for the purpose of sliding the derrick back and [136] forth from the road position to the erecting position, and vice versa.

Item 2 of Exhibit 27 is the mast rear leg upon which the track 1 is located. And item 3 is the mast leveling or extending screws which permit the mast to reach the ground and be leveled at ground level.

Now, referring to Exhibit No. 32, item 1 is the fixed hinge located in the position previously described.

Q. (By Mr. Subkow): Just a moment, Mr. Moon. Will you locate it with respect to the derrick and with respect to the chassis?

A. It is located—it is positioned on the derrick.

Q. Have you indicated the hinge position on the derrick?

A. Yes. It is positioned on the derrick at 1, and it is positioned above the driver at—I would like to

(Testimony of Cleon James Moon.)

correct that—above the driver on the frame support members.

Q. Have you indicated the frame support members?

A. I have not indicated the frame support members.

Mr. Subkow: Will you so indicate them by a number?

May we borrow your Honor's copy?

The Court: Yes.

(Whereupon the document was given to the witness and then back to the court.)

Q. (By Mr. Subkow): Now, continue with your description [137] as to the frame support members.

A. The hinge is also located above the driver on frame support member 4, and additional members which cannot be seen because of the guarding, but which exist in the area 4 prime.

Q. Just a moment. Are any such frame support members shown in the patent, Exhibit No. 1?

A. Yes. They are shown in the patent, Exhibit 1, in Figure 6, where they are identified as 14, and by additional structure not numbered.

They are also shown in Figure 11, where again they are identified as Figure 14 and 15, and two angular braces joining the two which are not numbered.

Q. The lower ends are mounted where?

A. The lower ends are mounted on the chassis. The chassis 11, actually—in Figure 11—it's shown as a cross member of the chassis 13.

(Testimony of Cleon James Moon.)

Q. Now, with respect to the structure shown in the Exhibits 32 to 35——

The Court: What is the question?

Q. (By Mr. Subkow): With respect to the supporting framework in the structure, Exhibit 32 to 35, where were the lower ends of that structure connected?

A. They were connected to the chassis, the members identified as 4 and 4 prime, which cannot be seen, were [138] secured to the chassis at points along the chassis.

Q. Now, with respect to this framework, what functions does this framework perform?

A. It supports the mast as it is carried over the road. It forms a protective framework surrounding the driver as he is driving over the road. It also forms a protective framework surrounding the driver if he has to move the mast while it is in a partially erected position. And it acts as a framework to carry loads transferred from the mast through the framework and into the ground.

Q. Why do you say it protects the driver under those conditions?

A. Because in the case of a back-in unit you have a conventional cab which has no framing structure whatsoever of any structural importance. You merely have a sheet metal cab that offers little, if any, protection to the driver in case the rig should suffer an accident.

In this case these members are made sufficiently large to carry loads from the mast into the ground

(Testimony of Cleon James Moon.)

and, consequently, are a very substantial protection for the driver since they surround him, in this respect, that they are on each side of him.

Q. Well, in a drive-in isn't there a support for the forward end of the derrick which passes over the cab?

A. Yes, there is a support for the forward end of [139] the derrick which passes over the cab. It must be high enough so that it does not impair his vision in any way as he drives in. But there is a cross member there which carries the hinge and supports the mast.

Q. When you say "impair his vision," are you talking about forward or upward?

A. Both. It should be arranged in such a manner that his vision upward should not be too badly impaired. In other words, if he leaned forward and looked through the windshield, he should still be able to see upward. And in approaching the well head he should not have any forward vision, either upward or downward, that is impaired.

In many occasions there will be a pumping unit, sometimes a rather large pumping unit, and in certain types he will have to be careful that he does not approach the unit in such a manner as to strike it.

Q. Now, you say that structure would not protect the driver in case of some trouble or other?

A. Oh, the structure shown in Exhibit 32 would offer very good protection to the driver.

Q. I think we are discussing two different things.

(Testimony of Cleon James Moon.)

I will come back. I am now referring to the structure that supports the forward end of the derrick in the back-in unit, and I ask you whether your testimony with regard to impairment of vision referred to the back-in unit or the drive-in [140] unit.

A. Well, my previous testimony refers to the drive-in unit.

Q. Well, let's go back. I think we have had a misapprehension.

You testified that this supporting structure protected the driver, and I asked you whether any such structure was present in the back-in unit, and called your attention to the support member for the crown of the derrick where it passes over the driver, and asked you what sort of protection that gave.

A. I think you are referring to the thing that we have inherited from the old cable tool days and jokingly call it the "headache post." California designers do, anyway.

Q. I think that is what I mean. Let's turn to Exhibit 12 and I believe that using something before us we won't get into any confusion.

Mr. Kenway: If your Honor pleases, I haven't been furnished with a copy of Exhibit No. 12. Could I go to the witness stand so that I might see it?

The Court: The clerk will hand you the exhibit.

Mr. Kenway: I don't want to take your Honor's copy.

(Testimony of Cleon James Moon.)

The Court: No. I have seen that enough. I think I know it by heart.

Mr. Kenway: Thank you. [141]

The Court: Let's proceed, Mr. Subkow.

Mr. Subkow: I am waiting for an answer, your Honor.

The Witness: All right. Referring to Exhibit 12. This is a back-in unit using a custom-made conventional-type truck.

Q. Restrict your answer to what you call the "headache post" and we will save time.

A. The "headache post," or the front mast support member, which is shown located above the bumper and in front of the engine, forms a framework of sufficient strength to carry the weight of the mast at that point, but it is not sufficiently strong to afford the driver any protection in case the mast was moved while the—or, the vehicle was moved while the mast was erect, or partly erect; nor does it afford the driver much protection in the case of an accident. [142]

Q. All right. Referring to Exhibits 32 to 35, continue your description of the construction of the exhibits, and refer to your Exhibit 1 for comparison.

Mr. Subkow: Has Exhibit 23 been received in evidence?

The Clerk: My records don't show that it is.

The Court: No, it has not been offered as yet.

Mr. Subkow: I offer it in evidence.

(Testimony of Cleon James Moon.)

The Court: Any objection? That is the large drawing?

Mr. Kenway: I understand it is offered to show what is in the patent, and on that basis I have no objection.

The Court: Received in evidence.

Mr. Subkow: I am not accepting any limitation on the introduction in evidence.

The Court: It isn't plain. As I understand, it is a large scale drawing of what is shown in the patent.

Mr. Subkow: No, not as to the detail shown in the patent. However, we will not accept at this moment any interpretation of the evidentiary value of that exhibit.

Is it received in evidence, your Honor?

The Court: Yes, it is received.

(The exhibit heretofore marked Plaintiffs'

Exhibit 23 was received in evidence.)

Q. (By Mr. Subkow): Go ahead, Mr. Moon.

A. We were comparing the type of structure shown in Exhibit 32 and Exhibit 27. I have explained how the track [143] 1 was used, and how the hinge 1 was used, and how the loads applied at hinge 1 in Exhibit 32 were carried into 4 and 4-prime.

Additionally, in Exhibit 32 the rear leg 2 was carried forward of the hinge, and hinged and secured against the vehicle in such a manner as to be out of the way and not exceed the 3-foot overhang requirement.

(Testimony of Cleon James Moon.)

Also, the top leg extensions 3 were retracted and made of a sufficient length so that they could be moved forward or slid rearward, so that when the mast was erected the legs would reach the ground and could be secured against the ground by using the leveling screws at the end of the leg to lower the mast and carry portions of the applied derrick load.

Q. Was there any similar construction shown in your patent?

A. Yes, there is a similar construction shown in the patent. Referring to Exhibit 1—

The Court: In Figure 1?

The Witness: Exhibit 1, and Figure 1, your Honor, I refer to the hinge point 17 as being similar to hinge point 1 shown in Exhibit 32, and shown again in Figure 3 and Figure 4 the same type of relationship exists.

In Figure 6, as we have previously testified, load carrying members 14 and adjacent members compare with 4 and [144] 4-prime in Exhibit 32, and the leg extensions 25a—

Q. (By Mr. Subkow): May I call your attention to Figures 3 and 4, too?

A. Thank you. Again referring to Figures 3 and 4, the leg extensions 25a, which consists of screw jacks are extended after the mast is erected so that they rest upon the ground, and can be used.

Q. I notice in the patent that the length of the extensions appear to be shorter than the length of

(Testimony of Cleon James Moon.)

the extensions in the exhibit to which you are referring, Exhibit 32.

A. I don't believe that that is very material. It was the habit of designers to make these legs any length they chose so long as they reached the ground and transferred the leg loads after the mast was erected.

Q. In other words, they could be made as long as you needed, or long enough to reach the ground, like Lincoln's legs? A. That's right.

Q. Now, referring to Exhibit—I think it will be 34, will it not? I have given away my exhibits, and I have had to use yours, so my numbers have disappeared.

A. That is Exhibit 28. Oh, no, no.

Q. No. Now, was this unit when photographed ready for delivery and licensed by the State for transport? [145]

A. The unit was ready for delivery. The license I can't testify to. It was our habit to use, at least for road testing until we got the unit officially licensed, to use either a dealer license or one of our truck licenses. I suspect the latter was slightly illegal, but we were running our road tests locally, and I can't testify as to where that license came from.

Q. All right. Now, that exhibit shows the extensions retracted inside the upper legs?

The Court: Are you referring to Exhibit 34 now?

The Witness: Exhibit 34.

(Testimony of Cleon James Moon.)

Mr. Subkow: Your Honor, as I said, they have stolen my exhibits.

The Court: Exhibit 34?

The Witness: That is correct, your Honor.

The Court: And you referred to that in your previous answer with respect to license plates, didn't you?

The Witness: Yes, sir.

Q. (By Mr. Subkow): Now, looking at Exhibits 34 and 32 and 33, can you state the posture of the legs with respect to the driver's position?

The Court: Isn't that very apparent in the photograph?

Mr. Subkow: If it is apparent, I withdraw the question.

The Court: You know, we are almost at the end of that day and a half that was estimated to try this issue. [146]

Mr. Subkow: Yes, your Honor, we are, but I think I am entitled to a little leeway. I think I will finish this afternoon.

The Court: Well, you will remember both sides estimated two days?

Mr. Subkow: Your Honor, I meant to say for my side. I didn't intend to include theirs.

The Court: Well, I don't expect to limit you, but it seems to me that the matters are perfectly apparent to anyone from the photographs.

Mr. Subkow: I was thinking of my record as well.

The Court: Ask him a leading question on the

(Testimony of Cleon James Moon.)

subject, then, and I think it will not be objected to, if you want the record to show it.

Mr. Subkow: I think the witness can answer the question promptly, and we will save time.

The Witness: In the position shown in Exhibit 34, the legs straddle the cab.

Q. (By Mr. Subkow): Is that true with both the top and bottom legs?

A. Yes, that is true with both the top and bottom legs.

Q. With respect to the other features of the design, the structures as shown in these Exhibits 32 to 35 correspond, do they not, to those shown in Exhibits 27 to 31, and to the [147] features which you have described in your patent in suit?

Mr. Subkow: It is a leading question, and I hope your Honor will excuse it.

The Court: Unless the other side objects, all right. You might be surprised, and they might never object.

The Witness: I am afraid you lost me, and I will have to ask the court reporter to repeat the question.

Mr. Subkow: I am really ashamed of my question.

(The question referred to was read.)

Mr. Subkow: Your Honor, at this time it had been my intention——

The Court: Do you want an answer to that question?

(Testimony of Cleon James Moon.)

Mr. Subkow: I am sorry. I thought we did have. I am sorry. Let's have the answer.

The Court: Can you answer it, Mr. Moon? Do you know the features the question refers to?

The Witness: Yes, I know the features the question referred to. I am trying to get them oriented with respect to the exhibits and——

The Court: Tell us what features the question refers to.

Mr. Subkow: Your Honor, I will go into the details. I thought I was saving time.

The Court: What features? Just name them. It will be the hinge, the legs, the mast. [148]

Mr. Subkow: Yes. Perhaps the witness can tell us, and that will save the question.

The Witness: Did you include Figure 27 in that?

The Court: Exhibit 27.

Q. (By Mr. Subkow): Yes, I intended to include Exhibit 27.

A. Well, in the features shown in 34, 35, and 32——

The Court: Exhibits 34, 35 and 32.

The Witness: ——They coincide with the patent.

The Court: Those are the Waldrip 421 units?

The Witness: Yes.

The Court: What about the 321 units in Exhibit 27?

The Witness: In the case of the 321 unit there is one exception, and that is the track is not identical with the patent.

The Court: That answer then would apply to

(Testimony of Cleon James Moon.)

the photographs, Exhibits 27, 28, 29, 30 and 31, would it not? They are all of the 321 unit?

The Witness: Yes, sir.

Mr. Subkow: Now, your Honor, I had intended, had you permitted me, to go on with the presentation of the infringement feature to develop a point in connection with that feature, and if we are going to determine the issue of validity, I would want to present it at this time.

The Court: If it has any bearing—— [149]

Mr. Subkow: It has a bearing on the question of validity, yes, sir.

The Court: That is the trouble with trying these issues separately. You cannot always separate them. In case of doubt, why, put it in.

Mr. Subkow: It has thrown some confusion on my scenario here.

The Court: In case of doubt, if you feel it has a bearing on the issues, why, I want to hear it.

Mr. Subkow: Very well. On the presentation of the question of how the loads got to the ground and then through the structure, I was in some doubt whether it was sufficiently clear, so we have developed a piece of demonstrative evidence, a copy of which was shown to the defendants, who just received it this morning, and all we could do was to show it this morning. Perhaps I should have the witness identify it, or perhaps if I make a statement, and it will be agreed to, it will save testimony.

(Testimony of Cleon James Moon.)

The Court: Do you want it marked for identification?

Mr. Subkow: It is already in the list of exhibits, one of the missing exhibits. If you will give me a moment, I will find my place in the list of exhibits.

Yes, it is Exhibit 95. The drawing is not too inconvenient for your Honor to handle. It is not too large.

The Court: Very well. [150]

Mr. Subkow: I will have it marked for identification at the present time.

The Court: It will be so marked.

(The exhibit referred to was marked Plaintiffs' Exhibit 95, for identification.)

Mr. Kenway: Mr. Subkow, I am confused. On my list of exhibits, which you gave me, you identify Exhibit 95 as Exhibit 59 with derrick erected, and I look back at Exhibit 59, and that says, "Reduction of same."

Mr. Subkow: If you will look at 58, you will see that it is Exhibit 4 of the Woody deposition, which was a tremendously large drawing, and I had it reduced in size, and this about corresponds to the size of the reduction. Therefore, I made reference to the reduction rather than the original exhibit. You will have a copy of our reduction as well.

The Court: Exhibit 95, for identification, shows the device of the patent in suit, does it, with the derrick erected?

Mr. Subkow: No, your Honor, it does not. It was designed to show the defendants' structure, but

(Testimony of Cleon James Moon.)

it is offered solely for the purpose of illustrating how forces in the derrick are transferred, and those forces apply both to the patent in suit, the Waldrip structure, and the defendants' structure. We will only discuss it with respect to the transference of forces, without reference to whether it is mounted on a [151] defendants' unit.

The Court: Very well.

Mr. Subkow: That is our purpose. Now, will a verification——

The Court: Perhaps it will be stipulated. Does this Exhibit 95, for identification, fairly depict what it purports to depict with respect to the defendants' unit with the derrick erected?

Mr. Kenway: I am sorry, your Honor. I didn't catch what you were asking.

The Court: I say, does Exhibit 95, for identification, fairly depict what it purports to depict with respect to the accused unit, the defendants' unit, with the derrick raised?

Mr. Kenway: May I ask Mr. Woody before I answer that, your Honor?

Mr. Subkow: May I ask also—oh, I am sorry.

Mr. Kenway: Mr. Woody tells me that this does correspond accurately to a drawing which was in evidence at his deposition, but in some respects does not correspond to a unit which was actually constructed by the defendant.

Mr. Subkow: Well, I must say I am surprised, because the deposition says it was.

That is the difficulty. That is the reason why I

(Testimony of Cleon James Moon.)

was going to ask whether the question wouldn't be modified to refer to the structure of the derrick without reference to the structure of the——

The Court: Does the defendant manufacture a particular type of derrick?

Mr. Subkow: These derricks that are shown here are the same type of derricks that are used in the patented structure, and in the Waldrip structure and in their structure. That is why I wanted to——

The Court: There is no claim——

Mr. Subkow: There is no novelty in this. It's the way it is mounted on the structure. The derricks are modified in some respect to apply to it. I only want to use it to illustrate how the forces are applied to it, and where they go, for purposes of illustration of what the patent means. And I am at this point not trying to establish that there is anything that amounts to an infringement at the moment. I am only talking about the patent and the [153] questions of validity. We will come to that later, if your Honor permits us to go to the issue of infringement.

Mr. Kenway: Well, I want to add to what I said that Mr. Woody now tells me that the derrick structure itself accurately shows what the defendant has manufactured.

The Court: And the connection of the derrick to the vehicle, does that show? Is that accurately shown?

(Testimony of Cleon James Moon.)

Mr. Kenway: As shown here the cab appears to extend into the structure of the derrick. And, as a matter of fact, that has not been carried out in any of the units which have been actually constructed by the defendant. And we think that it is a rather important point in view of the language of the claim.

Mr. Subkow: We make no point of it at this moment. The exhibit is not directed to that feature at all.

The Court: Very well. Proceed.

Mr. Subkow: May it be received in evidence, then?

The Court: Any objection?

Mr. Kenway: No objection.

The Court: Received in evidence.

(The exhibit referred to, marked Plaintiffs' Exhibit 95, was received in evidence.)

Q. (By Mr. Subkow): Mr. Moon, using this drawing and your patent and the exhibits of the photographs, will you describe how the forces, i.e., the loads, are transferred [154] to the ground?

A. The forces applied at the crown of the derrick result——

Q. Now, the forces applied at the crown where?

A. At the top of the mast.

Q. Is it at the center of the pulley that is shown at the top of the mast?

A. The hook load is applied to the center of the pulley that is shown at the top of the mast.

(Testimony of Cleon James Moon.)

Q. Is that the vertical line that passes through that center?

A. That is the long vertical line that passes through the center.

Q. Ending in an arrow.

A. That is correct.

Q. About one-third the way down?

A. That is correct.

Q. All right. Now, that is the result of the load that is on the hook at the bottom of the drawing.

A. That is right. When the tubing is picked up or the load is picked up, that is the applied load to the hook.

Q. All right. Now, what other loads are there?

A. In addition there is the fast-line load.

Mr. Subkow: I wish you had numbered these things, Mr. Moon. It would be helpful if you did.

The Court: Perhaps he can number them during the noon recess.

We will take the noon recess at this time.

Don't forget your stipulation about correcting yesterday's record.

Mr. Subkow: Yes, sir.

The Court: We will recess until 2:00.

(Whereupon a recess was taken until 2:00 o'clock p.m. of the same day.) [156]

Wednesday, March 26, 1958. 2:00 p.m.

CLEON JAMES MOON

the witness on the stand at the time of the noon recess, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Mr. Subkow: Your Honor, we have placed the exhibit on the board, where it will be testified to. We have given your Honor a duplicate copy of that, so that it would be easier to follow.

The Court: You refer to Exhibit No. 95?

Mr. Subkow: Yes, sir. And for your convenience. Of course, some of these lines are not too visible.

The Court: Now, how about the corrections in the record that you mentioned this morning?

Mr. Subkow: We have stipulated to the corrections in the record. We thought we would give them to the reporter, and ask her to correct your copy as well, and not take the time in open court.

The Court: Very well. That is very good.

Mr. Subkow: May Mr. Moon stand at the exhibit and testify from there?

The Court: Yes.

Q. (By Mr. Subkow): At the end of the examination this [157] morning—

Mr. Subkow: And may I come over there?

The Court: Yes, we may.

Q. (By Mr. Subkow): (Continuing) —we started to describe the forces which occur in the derrick construction which is present in both the

(Testimony of Cleon James Moon.)

back-in and in the drive-in unit described in the patent, and we placed numbers on the exhibit. I notice, Mr. Moon, that the crown of the derrick is shown necked in. Will you point to the portion where it is necked in?

(Witness indicates.)

Q. —whereas in the structure of your patent it is not necked in. Is there any substantial difference as a result of that construction upon the functioning of the structure?

A. Yes, there is some difference. I don't say that it is a substantial difference. The reason that we didn't neck the top in was one, first, of economics, and, second, making all the legs do a near equal amount of work, and this design, because the center or line of the crown is nearer the center line of the front leg, the front leg under some load conditions does do more work than the rear leg, that is, it will be carrying more load in compression than the rear leg will be carrying.

Q. You say the difference is not substantial in the functioning of the device? [158]

A. Not in the functioning of the device. The two designs, if properly designed, will pick up their loads with the A.P.I. factor of safety.

Q. Do they work in substantially the same way or in substantially a different way?

A. They work in substantially the same way.

Q. Now, will you describe the situation of the derrick with respect to its supporting and functioning parts of the structure?

(Testimony of Cleon James Moon.)

Mr. Subkow: Your Honor, at this point I do want to say, in fairness to the defendant, that in using this construction and showing this drawing, there appears to be a structure which reaches from the ground straight up through the back legs. That is not true in the case of the structure of the defendant.

We have brought out here the other views that we would have used had we been discussing infringement, and we point out that these structures here that come down here (indicating) are attached to the members which reach from the chassis up to the hinge point, and then are in the form of outriggers, as if they are straddling the structure instead of straddling the stand up here.

May I ask if that is a fair statement?

Mr. Kenway: Oh, yes. Thank you very much.

Q. (By Mr. Subkow): Will you proceed? [159]

A. You asked about the supporting structure, Mr. Subkow. The supporting structure, so far as the derrick is concerned, is the supporting structure shown as an angle member here at the load L-6, and the straddling structure you just described at the load L-8, and the accompanying frame of the vehicle. Now, additionally, the front leg of the mast is supported on the ground, or in this case on a pedestal which forms a part of the ground.

Mr. Subkow: Will you read that answer, please? I got lost.

(The answer was read.)

Mr. Subkow: Referring to the accompany ex-

(Testimony of Cleon James Moon.)

hibit,—I offer that as Exhibit 94, for identification, your Honor.

The Court: It will be so marked.

Mr. Subkow: —unless it will be stipulated that it may go in evidence in connection with the same limitation as I suggested for the other exhibit.

Mr. Kenway: No objection on that basis.

The Court: What is that? What is 94, for identification?

Mr. Subkow: The same as 95. As we have described, 94 shows how these members, lower members here, are connected to the derrick. They are shown as these outriggers. You are now looking toward the front of the structure.

The Court: The front view of the derrick or mast, is it? [160]

Mr. Subkow: Yes, sir.

The Court: Very well. It will be received in evidence as Exhibit 94.

(The exhibit heretofore marked Plaintiffs'

Exhibit 94 was received in evidence.)

Mr. Subkow: We do not want to mislead the court in any way. The structure which is shown in this figure behind here (indicating) is not the same structure as is shown in 95.

The Court: But both 94 and 95 depict the accused device?

Mr. Subkow: Yes, they both depict the accused device, but different units of the accused device.

Mr. Lyon: I don't know that we agree to that. We insist that there are substantial differences be-

(Testimony of Cleon James Moon.)

tween 94 and 95 and anything that was ever built by the defendant.

Mr. Subkow: They are not offered at this time in proof of the issue of infringement, and I think that will shorten it.

The Court: Very well.

Mr. Subkow: May we re-offer them on the issue of infringement, if necessary?

The Court: Yes. [161]

Q. (By Mr. Subkow): Mr. Moon, referring to Exhibit 94, which is this exhibit to your left——

Mr. Subkow: I suggest the clerk should mark it, shouldn't he?

The Court: Yes.

Proceed, Mr. Subkow.

Q. (By Mr. Subkow): Are there any structures in Exhibit 94 which form part of the supporting structure of the derrick?

A. Yes, there are. The outrigger structure previously described as this support means here and the triangular braces——

Q. The "support means here" is a short vertical section which is left of the figure which appears on the right of the exhibit? A. Yes.

Mr. Lyon: You are not making any record. Why don't you give the witness a pencil and let him mark that.

Mr. Subkow: I think the suggestion is excellent.

The Witness: The support means 1. The terminal——

(Testimony of Cleon James Moon.)

The Court: You are marking the support means with No. 1, is that it?

The Witness: Yes. We use that language when we are marking.

The support means which I have marked 1 is the terminal [162] end of the triangular bracing 2 and 2 prime which is tied into the narrow vertical member 3 and 3 prime, which has diagonals 4 and 4 prime.

The mast is supported upon bearing block 5 and 5 prime, to which are attached the rear legs of the mast 6 and 6 prime. Loads coming down the rear leg or reactions at the terminal ends of the members marked 1 will load the structure in load transverse relationship to the ground. The extent or magnitude of the load and the direction of the load will be determined by the application of the loads to the structure.

Q. Mr. Moon, will you indicate—it appears that the front legs of this derrick on Exhibit No. 95 have been cut off, have they not, to reveal the structure behind them? A. That's right.

Q. Will you indicate the part where the legs have been cut off on the exhibit?

A. I will mark them 7 and 7 prime.

Q. Will you indicate on Exhibit 95 where they have been severed, for purposes of illustration?

A. They have been severed at Section AA.

Q. And also where else?

A. At BB on 94.

Mr. Subkow: What we have done is to chop

(Testimony of Cleon James Moon.)

out a piece of those legs so you can look at the structure, your Honor.

The Witness: And on 95. [163]

Q. (By Mr. Subkow): Go ahead, sir.

A. Your Honor, there are several types of loads that are applied to these masts. There are the loads that are applied during the well pulling operation. There are wind loads which are applied under wind conditions and which have to be taken into consideration if the mast is to meet the API code.

This chart here shows the application of the crown loads when the——

The Court: "This chart" being Exhibit 95?

The Witness: 95. I am sorry, your Honor.

Q. (By Mr. Subkow): Mr. Moon, have you discussed the rigging of the derrick, yet?

A. No, I have not.

Q. Would you? I think that ought to be done.

A. I was going to get into that when I got into the discussion of the crown load.

Q. I will let you go your own way. Thank you.

A. The application of the crown load for pulling tubing is such that it is represented in this figure 95 by the force L-1.

The fast line load, which is represented as the line running from the hoist drum to the crown around and around the traveling block—and in this case this is a five-line system with the dead end anchored to the traveling block, [164] although that is not shown—the fast line load is represented by this force here, force L-2.

(Testimony of Cleon James Moon.)

Q. (By Mr. Subkow): What is the fast line?

A. The fast line is the line that runs from the hoist over the crown, around and around the block, dead-ending either some place in the derrick or behind the derrick, or to the becket of the block. In this case it is intended, on this force diagram, that it dead-end to the becket of the block even though that is not shown in this drawing.

Q. That line lifts the block?

A. That line lifts the block.

Now, the mast is secured against overturn by guy wire to the back end of the vehicle. The vehicle is heavy at this point, and the mast is tilted slightly forward. Without this back load carry guy the mast would fall forward. It restrains the mast from going further forward. It's a rather large line in most cases if it is doubled.

The mast has to be the resultant of the forces. Consequently, a line drawn from the center line of the crown parallel to the angle of the mast will be the direction of that force. Now, to close our polygon of forces, we introduce the angle of the guy, and the length and angle of that guy is placed on the force polygon to the point where it intersects with the resultant of the forces which are in the mast. [165]

The length of that force shown on this chart is the magnitude of the force in the guy wire.

Now, resisting those forces we have reactions, because for every force there has to be an equal and opposite reaction. So, we have a reaction at the

(Testimony of Cleon James Moon.)

front leg at R-1. We have reactions at the rear leg at R-2. We have reactions at the point under the ram at the jack, if that jack is used, at R-3. If that jack is not used, the loads that go into the frame are transferred to the wheels fore and aft or into any other jacks that might be located along this plane.

Now, the amount that is in these places depends entirely upon the amount that is applied to the mast and the way that it's applied to the mast.

In addition to those forces the back guy and the fast line have forces of their own. Now, if we are applying a force into the guy in this direction it obviously is lifting up in a vertical force and, depending upon the angle of the guy, pushing forward in a horizontal force.

The same thing is true of the fast line. It is lifting up and it is pushing forward. Resisting that is the tilt of the mast which is wanting to push back at R-5 and at R-4. So that we have forces going through the vehicle frame and through the angular member where the load L-6 is shown and pushing against the hinge point at R-4 and [166] resisted by the ground at R-5.

Now, that's an over-simplification of the forces that exist as necessary in a load carrying condition when we are pulling a well.

Q. What is the consequence of the fact that the back legs meet the hinge point at an angle to the vertical upon the resultant forces in the angular member, and where are those forces transmitted?

A. Those forces——

(Testimony of Cleon James Moon.)

Q. Will you please state the consequence, first?

A. The consequence is that they go down both members.

Mr. Subkow: Will you read the question to the witness?

(Question read.)

The Witness: The forces are transmitted at the hinge point. The force coming down the back leg, whether it is a large compressive force or a small compressive force are such that they are directed at an angle to this vertical member here and this angular member here. In other words, the compressive load falls between those members. And if it falls between those members it loads the vertical member and it loads the angular member in compression.

Now, the nearer it is to vertical the less compressive load you would have in here—that is, in the member where the load L-8 is shown. And——

I am sorry. I got crossed up a little bit there. I [167] would like to go back and explain again.

The nearer this leg is to vertical——

Q. This the back leg?

A. The nearer the back leg is to vertical, the more load will go into the leg shown as L-8 and the less load will go into the diagonal member where the load L-6 is indicated. [168]

Q. Mr. Moon, what would happen in this situation, with the guy line strung, the fast line connected, and the load on the hinge, if someone were to disconnect the derrick at the hinge from the supporting structure which you have described?

(Testimony of Cleon James Moon.)

A. We would also have to disconnect this resisting member, which I will call 8 on Exhibit 95, but if resistance was taken away from the hinge point at that point, in other words, if the bearing were free, and if that were free (indicating), the vehicle would move into the mast. It would be pulled into the mast by the horizontal forces on the fast and dead line.

Q. And when it is connected at the hinge, what prevents that from occurring?

A. The angle brace where the load L-6 is shown, and the frame which is connected to the angle brace at load L-6.

Q. And the resultant force finally goes where?

A. The resultant force finally goes into the ground from the frame, either from the jacks or through the wheel.

Q. Mr. Moon, you have made an assumption of a force situation in drawing this diagram. Will you state what that assumption is?

A. Well, the assumption is that those are the applied loads at the crown.

Q. You have assumed that the length of the vectors [169] which end in arrows have the relationship in magnitude that are shown by the length of the lines indicated: is that correct?

A. In this sketch, yes. I have assumed a five-line string-up, which eliminates the complexity of the dead line, and that is the only reason this is done here. We merely wanted to simplify the force diagram.

(Testimony of Cleon James Moon.)

I have assumed a five-line string-up which is proportional to this length here, the length L-1. The introduction of the fast line, since we do have a five-line string-up, the fast line force would be one-fifth of the length of this line, and we have taken in that angle and length of one-fifth, the force known at L-2, and the angle parallel to the fast line has been introduced into the force polygon.

Q. And you have assumed no wind load, have you?

A. There are no wind loads assumed in this structure at all. When we design a mast, the wind loads—we are not required to assume the wind loads simultaneously with the applied column loads to the mast, the crown loads.

Q. But they exist, do they not?

A. But they do exist.

Q. If they exist, what would their effect be upon the position of your resultant load line, and the distribution of the load between the front legs L-4 and L-5?

Mr. Kenway: I must object to that because it obviously would vary with the direction of the wind, would it not? [170]

Mr. Subkow: I was going to bring that out. I was trying to get a fair representation.

The Court: Do you accept a stipulation as to that?

Mr. Subkow: Of course. That was coming next.

Q. Will you proceed?

A. Mr. Kenway is right. It does vary with the

(Testimony of Cleon James Moon.)

direction of the wind, and with the application, the amount of the wind. Assuming that the wind load is blowing against the front face of the mast in a manner thus (indicating), the resultant would swing toward the lower leg, and would put more compression on the rear leg of the mast. Vice versa, if it was blowing in the opposite direction, it would put more load on the front legs of the mast, more compressive load.

Q. You have also assumed, have you not, that there was an equal firm foundation under all of the supporting leg structures, have you not?

A. That is correct.

Q. It frequently happens in the field that that situation does not occur, doesn't it?

A. That's right.

Q. What would the result of a non-equal earth bearing load have upon such forces?

A. The result of the unequal soil bearing is that you have an applied load system which is indeterminate. [171] Unless you know the resistance of the soil bearing at any location, you cannot design the mast by determinant means. Frequently we find in the field the soil under a portion of this structure along here, that would be the structure alongside the R-3, R-2 and R-1. Frequently a portion of that, particularly the portion nearer the well head, will become wet due to well fluid, and the reactions will transfer rearwardly. Now, it is possible that they could do the same thing in the opposite direction.

Q. Now, in designing and constructing a struc-

(Testimony of Cleon James Moon.)

ture of this kind, do you design and construct so that the structure will be stable under various conditions which occur in the field?

A. The A.P.I. column formula would be a factor of safety of 2. That takes care of most soil indeterminate conditions, even though it would have the effect of reducing your safety factor.

Mr. Subkow: The structures which you constructed and sold by Waldrip, and the structure as designed in your patent are designed—that is a leading question, your Honor.

The Court: Go right ahead until they object.

Mr. Lyon: It is also a compound question and assumes a fact not in evidence, to wit, that the structure that he sold was the structure that he patented, and on that ground I think we ought to enter an objection. [172]

The Court: Suppose you reframe it.

Mr. Subkow: I was afraid I was getting into trouble.

Q. The structure which is shown in your patent and also the structures which are shown in the photographs of the Waldrip unit, are they capable of taking the load at both the front and the rear legs, and if the conditions are such as to throw the load onto the front legs, to take them on the front legs?

A. Yes, they are.

Mr. Subkow: I have an unmarked exhibit, your Honor, which is a photograph we took on Saturday, and which I have given opposing counsel.

The Court: Do you wish it marked?

(Testimony of Cleon James Moon.)

Mr. Subkow: I wish it marked next in number, Exhibit 96.

The Court: It will be so marked.

(The photograph referred to was marked Plaintiffs' Exhibit 96, for identification.)

Mr. Subkow: Will you resume the stand, Mr. Moon.

(The witness resumes the stand.)

Mr. Subkow: Your Honor, we will not introduce the easel into evidence.

The Court: Very well. The clerk will take care of that.

The Witness: I have got my eye on it.

Q. (By Mr. Subkow): Will you identify this photograph? [173]

A. Yes, this is the photograph taken on Saturday, March 22, 1958, by Benjamin P. Bayliss.

Q. Were you present?

A. I was present. It was taken in the yards of the General Petroleum Corporation at Wilmington.

Mr. Subkow: Has your Honor the photograph?

The Court: No, I haven't seen it.

The Clerk: I gave it to the witness.

Mr. Subkow: It is more important that the court have it.

The Clerk: Oh, I am sorry.

(The photograph was handed to the court.)

The Witness: (Continuing) And it is the present version of the first Waldrip 321 drive-in that Waldrip manufactured.

Q. (By Mr. Subkow): In what respect is it

(Testimony of Cleon James Moon.)

different from the 321 unit as you manufactured it?

A. The sliding track on the first machine has been eliminated on this unit, and has been replaced by a different front leg system.

Q. Where is the hinge position?

A. The hinge position is above the driver's position, and to each side of the driver's position.

Q. Is it mounted on the derrick and on the chassis similarly to those shown in the exhibits——

A. 34?

Q. ——32 to 35? [174]

A. Yes, it is mounted in a similar manner to those exhibits.

Q. Referring to Exhibit 35,——

Mr. Subkow: May your Honor look at that?

The Court: I have it before me.

Q. (By Mr. Subkow): ——is the construction and rigging of the derrick as shown in Exhibit 35 similar to what you described the connection with respect to Exhibit 95?

A. The construction and the rigging, as far as the block, the traveling block and the crown is concerned is quite similar, but you will notice that the customer in Exhibit 35 is guying the mast to the ground, and not to the vehicle.

Q. What about the intermediate guy, which proceeds to the middle of the derrick and to the vehicle?

A. The intermediate guy was a method of top-section erection that we had,——

Q. I see.

(Testimony of Cleon James Moon.)

A. —and does not concern the structure in any other way.

The Court: Do the forces operate upon it in the same way as you described as to Exhibit 95?

The Witness: The forces act upon it in the same way, except the guy forces which are secured to the ground could not act horizontally against the frame of the vehicle. Now, [175] in the——

The Court: I was referring to the intermediate guy.

The Witness: Oh, the intermediate guy, it is slack at the time of the load application. It is not really a guy. It is a top-section lifting mechanism.

Q. (By Mr. Subkow): Mr. Moon, have you and your associates entered into any licensing agreements with other manufacturers under this patent?

A. Yes, we have.

Q. Will you state the names?

A. We have entered into license agreements with Hopper Machine Works of Bakersfield, Ideco of Dallas, Texas, and Wagner-Morehouse in Los Angeles.

Mr. Subkow: The elaborate preparation has broken down, your Honor. We haven't got three exhibits with us. Oh, they are all here.

Your Honor, with these exhibits I will be through with Mr. Moon. I wonder if we could take a short recess while I collect these things, or is it too early?

The Court: Yes, we will take a recess. We will recess subject to call.

(Testimony of Cleon James Moon.)

Mr. Subkow: We will be ready in just a few minutes.

The Court: Five minutes?

Mr. Subkow: Five minutes.

The Court: Very well.

(A short recess.) [176]

Mr. Subkow: They tell me that this Exhibit 96 has not yet been offered in evidence.

The Court: That is a photograph?

Mr. Subkow: Yes, your Honor.

The Court: Any objection?

Mr. Kenway: No objection, your Honor.

The Court: Received in evidence.

(The exhibit referred to, marked Plaintiffs' Exhibit 96, was received in evidence.)

Mr. Subkow: Will you turn to Exhibits 47, 48, 49, 50 and 52, and as a group state—well, first state what Exhibit No. 47 represents.

The Court: No. 47?

Mr. Subkow: Yes, sir.

The Court: No. 47 is a catalog, isn't it?

Mr. Subkow: This is it. It's a Hopper catalog.

Q. (By Mr. Subkow): Is this catalog——

The Court: Hopper Machine Works of Bakersfield.

Mr. Subkow: Yes, your Honor.

Q. (By Mr. Subkow): Are they one of your licensees, Mr. Moon? A. Yes, they are.

Q. Turn to page 2366 and 2367. Will you indicate where the hinge point of the derrick is in this structure?

(Testimony of Cleon James Moon.)

A. On page 2366 I have indicated by the letter H [177] where the hinge point is as shown in Figure 14.

On page 2367, Figure 16, Figure 17, Figure 18, I have located the hinge point where it is shown on the derrick and the derrick supporting structure.

Q. Will you generally state, as a group, what exhibits 48, 49 and 50 indicate?

A. They are catalogs.

Q. No. 48, 49 and 50 are photographs, Mr. Moon.

A. They are photographs of the Hopper design of a drive-in unit.

Q. Does the H on that photograph indicate the hinge point?

A. The H on those photographs indicate the hinge point.

Q. Are they the structures contained in the Hopper catalog, Exhibit No. 47, at the places indicated by you?

A. They are either the structures or very similar structures.

The Court: They are all manufactured by Hopper under the license?

The Witness: Yes, sir.

Mr. Subkow: May further proof of foundation be waived and these four documents go into evidence with numbers indicated?

The Court: 48, 49, 50 and 52? Any objection?

Mr. Subkow: 48, 49 and 50, your Honor. 52 is not included in the offer.

(Testimony of Cleon James Moon.)

The Court: 48, 49 and 50. Any objection to the offer of those photographs?

Mr. Subkow: Including, also, No. 47, the catalog

Mr. Kenway: Mr. Woody tells me, your Honor, that Exhibit No. 48 is a photograph of a Franks unit and not a Hopper.

Would you check that, Mr. Subkow?

Mr. Subkow: I will show you my 48. Perhaps you are confused in the numbers.

(Whereupon the exhibit was shown to counsel.)

Mr. Kenway: That isn't what you handed me.

The Court: You gentlemen have an over-supply of photographs around here, apparently.

Very well. The Hopper catalog, Exhibit No. 47, is it straightened out, now?

Mr. Kenway: Yes.

The Court: Any objection?

Mr. Kenway: I have no objection.

The Court: Exhibit Nos. 47, 48, 49 and 50 are received in evidence.

(The exhibits referred to, marked Plaintiffs'

Exhibits 47, 48, 49 and 50, were received in evidence.)

Q. (By Mr. Subkow): I will now hand you Exhibit 51 and Exhibit 52, and ask you to turn to page 2711. [179] A. All right.

Q. Will you state what that catalog indicates?

A. This catalog, which is the Ideco catalog No. 57, on page 2711 shows the Ideco version of a drive-in unit in the figure captioned "Drive-in

(Testimony of Cleon James Moon.)

Rambler with quick lift, 89-foot C mast, GM 6-110 Diesel engine."

Q. You have marked the hinge point?

A. I have marked the hinge point by the letter H.

Q. And the photograph, Exhibit No. 50?

A. Exhibit No. 50 is a photograph of the same, or a similar unit manufactured by Ideco, with the hinge point marked by the letter H.

Q. Is this structure manufactured under license under this patent?

A. Yes, the structure is manufactured under license of the patent.

Mr. Subkow: Further foundation waived, and may these two exhibits go into evidence as Exhibits 51 and 50?

The Court: 51 and 52, isn't it?

Mr. Kenway: 50 is the Hopper unit, according to the evidence.

The Court: Any objection?

Mr. Kenway: No objection.

The Court: Received in evidence. Exhibits 51 and 52. [180]

(The exhibits referred to, marked Plaintiffs' Exhibits 51 and 52, were received in evidence.)

Q. (By Mr. Subkow): Turning now to Exhibit 53, which is the Wagner-Morehouse catalog, will you identify what page—does this show a drive-in unit?

A. Yes, on page 5309 the Wagner-Morehouse

(Testimony of Cleon James Moon.)

catalog 57 shows their variation of a drive-in unit, with the hinge point marked at H.

Q. Is this structure manufactured under a license under the patent in suit?

A. Yes, this structure is.

Mr. Subkow: May this catalog go into evidence without further evidence?

Mr. Kenway: No objection.

The Court: Exhibit 53 is received in evidence.

(The exhibit heretofore marked Plaintiffs'

Exhibit 53 was received in evidence.)

Mr. Subkow: Your Honor, that terminates the direct examination, I believe, with Mr. Moon.

The Court: Any cross examination?

Mr. Kenway: Yes, your Honor.

Mr. Subkow: Oh, your Honor, I am sorry, there was just one question I planned to ask him and forgot. May I reopen and ask him?

The Court: You may.

Q. (By Mr. Subkow): Mr. Moon, you have testified before that the units, the back-in units are illegal, and that they [182] are overweight, and you have testified with respect to the legality of the structure which you have manufactured and sold under the patent by Waldrip. Is it possible to load the drive-in units so that they will be illegal?

A. Yes, it is. Also, if the drive-in unit is improperly designed, it can be overweight.

Q. It depends upon how much stuff you load on the truck; is that not true?

A. That is correct.

(Testimony of Cleon James Moon.)

Q. Now, for the same horsepower and well-pulling capacity of whatever standard is used for comparison of these structures, could you place more equipment and structure on the drive-in than on the comparable back-in unit? A. Yes, you can.

Mr. Subkow: That concludes it.

Cross Examination

Q. (By Mr. Kenway): Mr. Moon, have you Exhibit 33 in front of you?

The Court: The photograph of the Waldrip drive-in unit, is it?

Mr. Kenway: Yes, your Honor.

The Court: Do you have it, Mr. Clerk?

The Clerk: Yes, I do.

The Court: Will you hand it to him? [183]

(The document was placed before the witness.)

Q. (By Mr. Kenway): You testified that was a Waldrip unit with a 90-foot mast? A. Yes.

Q. Is that unit legal, as it is shown here?

A. Not as it is shown there.

Q. It has too much——

Mr. Subkow: Just a moment. May we see that? Go ahead, sir.

Q. (By Mr. Kenway): Is that because the overhang in front is too great? A. That's correct.

Q. In the brochure of Exhibit H, which is the Waldrip publication for design information concerning the various units. Would you agree that your prospective customers are thereby informed

(Testimony of Cleon James Moon.)

that the units will be legal with a 60 or 65-foot mast, but if they take the optional 90-foot mast the unit would not comply with the California laws?

Mr. Subkow: I think the exhibit should be placed before the witness, your Honor.

The Court: What exhibit is it?

Mr. Kenway: Defendants' Exhibit H.

Mr. Subkow: That assumes a fact not in evidence, your Honor, and I object. The evidence is not that this brochure was exhibited to customers or it was used to show them what the [184] structure was. The evidence is that it was made up for the engineering department.

Mr. Kenway: He testified on his deposition, I believe, that it was made up so that——

The Court: Why don't you ask him, and that will take care of the difficulty.

Q. (By Mr. Kenway): Didn't you testify on your deposition, Mr. Moon,——

The Court: Just ask him what the fact is, to shortcut it.

Q. (By Mr. Kenway): Were these brochures to be used by salesmen in discussing prospective sales with customers?

A. Our sales manager had one of these brochures. He was permitted to discuss the information in this brochure with the customer, with the understanding that the information was confidential information.

Q. And that information was to the effect that

(Testimony of Cleon James Moon.)

a unit equipped with a 90-foot mast would not be legal; isn't that the fact?

A. Is there a place in there that says that?

Q. Yes, sir. To save time, I will show you my copy (indicating on exhibit).

Mr. Subkow: May I see it?

(The document was handed to counsel.)

Q. (By Mr. Kenway): You agree, then? [185]

A. No, sir, I do not agree with that.

Q. You have changed your mind, since this was written?

A. Not at all. At the time that that was written, we may have thought that we could not make the units legal with the 90-foot mast in California. On the other hand, we made three of those masts, and they were all legal. We did not build a drive-in which was not legal in California.

The structure in the photograph to which you refer, Exhibit 33, is being prepared for erection, and the front legs have been—the top legs and the front legs have been pulled out so that the mast may be raised. They are slid back when the mast goes over the road.

Q. How about the 622 unit? That was a back-in Waldrip unit. Was that legal? A. No, sir.

Q. And were any of those actually built?

A. Yes, we built two of them.

Q. When were they built?

A. I believe the first one was built in 1947, before the first drive-in. I think that probably it was

(Testimony of Cleon James Moon.)
delivered in December of 1947. I can't be sure about that date. My memory is a little hazy.

Q. When you applied for the patent in suit, Exhibit 1, I take it you had in mind that the driver in the cab would have the controls for operating the derrick right in the cab? [186]

A. That was under consideration.

Q. Well, I direct your attention to column 2, at line 40, and the language reading:

“The improved visibility imparts a surer control by the driver who is in control of the lifting mechanism.”

I took that to mean that he had the lifting controls right in the cab.

Mr. Subkow: Is this cross examination directed to the issue of validity?

Mr. Kenway: Indeed, it is.

Mr. Subkow: On what issue stated in the pre-trial conference order? May I inquire through the court: On what issue stated in the pretrial conference order is that question directed?

Mr. Kenway: Well, it has to do with the reversal of parts, as you will see a little later.

It also has to do with the language of the claims. For example, the claims all specify—well, in Claim 1, for example, it says that the legs of the derrick straddle the cab, and it would appear from the file wrapper that the Examiner was induced to allow this patent on the theory that if you stick the cab right up there in the derrick, then the operator can see up the derrick and operate the various controls.

(Testimony of Cleon James Moon.)

Mr. Subkow: That can only be material on the issue of infringement.

Mr. Kenway: Not at all.

Mr. Subkow: ———whether or not the claims cover their structure. It can't affect the issue of validity.

Your Honor having formulated the issues at the pretrial——

The Court: That would go to infringement, wouldn't it,—the scope of the claim? If it is a valid claim at this point, why, we must assume on the trial of the issue of infringement whatever the patent teaches, must we not?

Mr. Kenway: But I think I am entitled to explore just what it is that is covered by the patent. My brother has gone into tremendous detail on all of the background events leading up to the alleged invention, and so forth, and what I am attempting to do here is to narrow it down, to see just what there is that is valid or not.

The Court: Suppose you reframe your question.

Q. (By Mr. Kenway): Was it a part of what you conceived your invention to be at the time you filed the patent application that the driver in the cab have controls for the operation of the derrick in the cab?

A. In this respect are you referring to hoisting controls?

Q. Well, you tell me, either hoisting controls, or the [188] controls for erecting the derrick, or both.

A. We never at any time considered that the hoisting controls would be in the cab.

(Testimony of Cleon James Moon.)

The Court: What about the other controls?

The Witness: We did consider that the derrick erection controls might be placed in the cab. However, experiment, your Honor, determined the best place would be on the outside. [189]

Mr. Subkow: Your Honor, I would ask that the question be read to the witness. I don't think the witness understands the import of the question.

May the question be read, and may we then have the answer?

The Court: Please read the question, Mr. Reporter.

(Record read.)

The Court: That's at the time the patent application was filed.

Mr. Subkow: What was that?

The Court: The question refers to the time of the filing of the patent application.

Mr. Subkow: I understand that. I want to know whether the witness understands the question.

The Court: As to time?

Mr. Subkow: No. As to what the question he was asking.

The Witness: Well, no, because the question is in two parts.

The Court: Why not take it one part at a time?

The Witness: Well, reading the patent——

The Court: The question is what you conceived your invention to be at the time you filed the application for the patent in respects called for.

The Witness: Very well. "The improved visibil-

(Testimony of Cleon James Moon.)

ity in parts assure control by the driver who is in control of the lifting mechanism——” [190]

That is the derrick-lifting mechanism, the mechanism to raise the derrick when removed into location.

Q. (By Mr. Kenway): And you never at any time wanted to put the controls for operating the traveling block in the cab? A. No.

Mr. Kenway: May I have Exhibit T-1 given to the witness, please?

The Court: Is the defendant following the list of its exhibits which are defendants’ exhibits which are set forth in the pretrial conference order?

Mr. Kenway: I am not sure that it was.

The Court: Do you have a revised list?

Mr. Lyon: Yes, your Honor.

The Court: I haven’t seen it.

Mr. Subkow: Neither have we.

Mr. Lyon: We have been in court all day. Last night at 5:00 o’clock I gave it to my secretary to have it retyped. I will have it tomorrow morning. But I didn’t anticipate we were going to get to our case today, so I don’t have it.

The Court: Very well.

Exhibit T-1 is what?

Mr. Kenway: A book of copies of patents which were cited in the file wrapper in the patent in suit. And I am not offering the exhibit at this time except for purposes [191] of identification.

(Testimony of Cleon James Moon.)

The Court: Apparently S is a book of prior art patents. Is that here?

That's a different book?

Mr. Kenway: That is a book of prior art patents which were not cited by the Patent Office and on which we rely in part on our defense of invalidity.

The Court: And T is the book of patents which are cited?

Mr. Kenway: T-1 is the book.

The Court: T-1.

Mr. Kenway: Yes, your Honor.

The Court: Do you have it, Mr. Clerk?

The Clerk: T-1 is before the witness now.

The Court: You have placed it before the witness?

The Clerk: Yes, your Honor, I have.

The Court: Very well. I thought you were looking for it.

And your question, Mr. Kenway?

Q. (By Mr. Kenway): Would you look at the first patent in the book, T-1, the McEwen patent, 2,331,558—

Mr. Subkow: Just a minute.

The Court: Do you have that before you?

The Witness: Yes, I do. Thank you.

The Court: What is your question?

Q. (By Mr. Kenway): With reference to Exhibit No. 95, I would like to ask you whether the load as it is applied to [192] the derrick shown in that McEwen patent, particularly at Figure 3 dif-

(Testimony of Cleon James Moon.)

fers materially from the conditions you described in connection with Exhibit No. 95?

Mr. Subkow: Your Honor, that is on the issue of validity, I concede; but they are using patents which were not cited for the purpose as prior art. Their stipulation and admissions and the answers to interrogatories which we read into the record state that they do not include these, and I object to the use of these patents as contrary to the pretrial order, contrary to their admissions, contrary to their answers to interrogatories, and the fact that we were not given notice under the statute.

Mr. Kenway: You will recall that I examined the witness about this patent at the time of his deposition. So, you can't be surprised at that.

The Court: But was statutory notice given in reliance based upon these patents?

Mr. Kenway: This is not a patent we are relying on as anticipating the alleged invention, your Honor, in the herein suit. This is part of the file wrapper and shows the state of the art.

Mr. Subkow: The question as to part of the file wrapper can only be material as showing what the Examiner considered and what he allowed.

The Court: It is part of the prior art. [193]

Mr. Subkow: Then, your Honor, I shall read their admission and statement which says they would not rely on that as part of the prior art.

Mr. Kenway: We are not relying on this patent as anticipating the patent in suit. We are not going

(Testimony of Cleon James Moon.)

to ask your Honor to declare the patent in suit invalid in view of this McEwen patent.

The witness has testified that he did not invent derricks.

The Court: Even though the defendant doesn't rely upon it as anticipating the patent in suit, it is still admissible to show the state of the prior art.

Mr. Subkow: Not when stipulated that he will not rely on it.

The Court: Well, rely on it for what?

Mr. Subkow: As part of the prior art.

The Court: How can he avoid it if it is cited in the file wrapper itself. The court couldn't avoid looking at it as part of the prior art if it's cited in the file wrapper.

Mr. Subkow: But the point is, is it material? Perhaps it was incorrectly cited.

The Court: I don't know whether it is material or not. It's claimed to be a part of the prior art. I haven't seen the patent myself.

Mr. Subkow: I want to protect the record. I don't want [194] evidence to go into the record and then have a request for a modification of the order or an amendment of the complaint to permit them to plead based upon the evidence that has been introduced.

The Court: Is there any such thought in the minds of the defendants?

Mr. Kenway: Absolutely not, your Honor.

The Court: Well, there is a disclaimer as to that. So, let's proceed. The objection is overruled.

(Testimony of Cleon James Moon.)

Mr. Kenway: Would you please read the question again, Mr. Reporter?

(Question read.)

The Witness: Yes, there is a material difference.

Mr. Kenway: I have the first drawing in that patent, your Honor. I don't have an extra copy of it. I am sorry. I thought I had.

The Court: This is the McEwen patent.

Mr. Kenway: Yes. Just to give you the general idea of what he is talking about.

The Court: Is there any objection to the court using this?

Mr. Subkow: Not at all, your Honor.

The Court: Very well.

Mr. Subkow: Would your Honor like to use the patent itself? I have it here. [195]

The Court: No. I think it might be of more use to you.

Q. (By Mr. Kenway): In what respects is it different?

A. The Exhibit 95 shows a back guy that influences the loading condition of the tower, as I explained in my testimony. The McEwen patent shows nothing at all.

Q. Assuming, now, that you have here in the McEwen patent the same guys that you show in Exhibit 95, the same height of the mast, the same angle of the mast and the same loads, would there be a difference in the factors and manner in which the load is applied through the derrick, the bracing structure, and so forth?

(Testimony of Cleon James Moon.)

A. If the guy is secured to the member 11, or at the base of it, or any place along that gooseneck, then there would be very little difference, if any, in the loading of the two masts.

Q. Again with reference to Exhibit 95, are you aware that Franks has manufactured telescoping derricks which could be detached from the truck and left erect at the well head so that the truck could be driven away?

A. May I ask if—well, strike that.

Yes, I am familiar with it.

Q. So that it isn't necessary for the operation of a portable derrick that it be at all times connected to the vehicle that carries it?

A. No, it isn't necessary. [196]

Q. Concerning the problem of legality in respect to the highway laws, would you say that that is a problem today? A. Very definitely.

Q. Would you also say that—well, let me ask it this way: Is it possible for a well service operator to buy on the market today either a back-in unit or a drive-in unit with a mast tall enough to let him pull doubles and with the vehicle that lets him add onto it all the accessory equipment he would normally like to have and still comply with the weight limitations in the vehicle code?

A. Well, that's a question of how much extra equipment you put on. You can buy extremely large legal back-ins capable of handling wells clear up to 14,000 feet on the market today from standard manufacturers which are completely legal. On

(Testimony of Cleon James Moon.)

the other hand, those back-ins can be overloaded with excess equipment and made illegal.

Q. And would you agree that quite often a manufacturer will deliver a unit to a customer which is quite legal and that the customer will add additional equipment which gets them into difficulty with the highway laws?

A. That has happened.

Q. Well, wouldn't you say that it is customary?

A. It's certainly not customary.

Q. You would say it happens only in rare instances? [197]

A. It happens at infrequent intervals.

Q. Now, with respect to the slidable derrick you were talking about, I call your particular attention to Exhibit 29, which is the photograph of the partially erected sliding derrick model——

The Witness: Excuse me. Can I speak to the clerk a minute?

That's yours.

Q. (By Mr. Kenway): Now, do you have Exhibit 29 in front of you? A. Yes.

Q. And that has been first slid forwardly along the chassis top and then tilted to the position in which we see it here, is that correct? A. Yes.

Q. Now, then, you spoke in your direct testimony of a fulcrum point, and I take it that's over the top of the cab, is that correct?

A. It's above the driver's position.

Q. And is that just a flat bar? I mean, what is

(Testimony of Cleon James Moon.)

now holding the derrick from sliding right down to the ground?

A. It is a round bar with a flat block on each end. And it is latched into place in that position.

Q. So that it can pivot but it can't slide, is that correct? [198]

A. It can pivot.

Q. But it can't slide?

A. It can't slide when it is locked, no. [199]

Q. Well,——

A. It is actually fulcrumed off the end of the cab.

Q. But you said there was no hinge there, I believe, and I ask you why your clamp and bearings, and so forth, wouldn't be considered a hinge.

A. There is a difference between a hinge and a fulcrum point. A hinge is a fixed arrangement. A fulcrum point is a point that can be anywhere. We slid this back and forth.

Q. Well, but, as you see it here, it can pivot only on that one place, and it is clamped together there, is it not?

Mr. Subkow: I submit counsel is arguing with the witness, your Honor.

Mr. Kenway: No, I am asking a question.

The Court: Do you understand the question?

The Witness: I didn't understand that it was posed as a question. Will it be re-read, please?

The Court: Suppose you reframe it, and ask him for the fact.

Q. (By Mr. Kenway): The derrick, as you see it here, namely, in Exhibit 29, is pivoting about

(Testimony of Cleon James Moon.)

that fulcrum point you mentioned. It is locked in that position, so that it can't pivot anywhere else, can it?

A. At this particular point, that is correct. [200]

Q. Now, again looking at Exhibit 29, and assuming that the erecting process has been carried to completion, would you say that the legs of the erected derrick will straddle the driver's position?

A. They are on each side of the driver's position.

Q. But you wouldn't use the word "straddle"?

A. In the sense that "straddle" to me means that you can see upward and between a frame that comes down to the ground, yes, I would use the word "straddle."

Q. You also testified, as I understood it, that when this unit was in the over-the-road position, the legs of the derrick straddled the driver's position; is that correct?

A. The patent so states that in column 4, line 18:

"The truck may be driven into the derrick site. It will be observed that the driver has full view of the site and can spot his truck accurately. It will be observed that no equipment associated with the truck is positioned in front of the driver. Particularly, as will be seen, the derrick legs straddle the cab, and the derrick, while it is being erected or retracted to rest position, does not obstruct the view of the operator of the cab."

Q. So that when a unit has been constructed as shown in your patent, the derrick legs always strad-

(Testimony of Cleon James Moon.)

dle the driver's position, whether the derrick is horizontal or inclined, or [201] completely erected; is that true?

A. In the sense that I previously mentioned, yes.

Q. And that is the sense conveyed by the sentences you read me from your patent?

A. That is correct.

Q. Now, with respect to the companies to which you have given licenses, Hopper, Ideco, and Wagner-Morehouse, is it true that they manufacture both drive-in and back-in types?

A. That is correct.

Q. So that you would agree with me that the drive-in type has become accepted, but that it hasn't pushed the back-in type off the map?

A. The back-in type is still being made, certainly.

Mr. Kenway: One moment, your Honor.

Mr. Subkow: May I offer the witness a drink of water, your Honor?

The Court: Yes, you may.

The Witness: Thank you, Mr. Subkow.

The Court: At any time you wish a drink, you may ask for it, and the bailiff will provide it.

The Witness: Thank you.

Q. (By Mr. Kenway): I direct your attention to Plaintiffs' Exhibit 47, the Hopper catalog for 1957 and 1958, and would you please turn to page 2363 and the Figure 6 at the top of the page. Would you say that, as shown in Figure [202] 6, the legs of the derrick straddle the driver's position?

(Testimony of Cleon James Moon.)

Mr. Subkow: Your Honor, I object that it is quite immaterial whether a structure of this type straddles the cab, or doesn't straddle it. It has no relationship to any issue in the case. The case is with regard to the patent in suit. The patent in suit does not relate to the back-in type, and this is a back-in type.

Furthermore, as to what the word "straddle" means as we have used it depends upon the interpretation of the word, and I think your Honor is able to interpret it.

The Court: He could have answered the question a long time ago, couldn't he? Then it would have saved us both some time. It is a matter of argument. "Straddle" is a very common word.

Mr. Subkow: There is going to be a lot of evidence brought in, or attempted to be brought in in place of your Honor's interpretation.

The Court: I don't doubt it. That is true in every one of these cases. But I can tell from looking at that that that derrick is not straddling the cab, so I don't see why you would have to waste a question on a subject like that, and you can argue it.

Mr. Subkow: I apologize. I withdraw the objection.

Mr. Kenway: And I withdraw the question.

The Court: Very well. Then you can start over again. [203]

Q. (By Mr. Kenway): You will agree, will you not, Mr. Moon, that your patent in suit does not show in the drawings any guys?

(Testimony of Cleon James Moon.)

A. That's right.

Mr. Subkow: I object, your Honor. I have a point here that I think is serious, and it is the same point I raised before. There is no issue in this case with regard to the completeness or the adequacy of the description. No defense has been raised with regard to the disclosure. Therefore, we must assume the disclosure is complete and satisfactory under the patent laws, as the issues are framed, and inquiry into that point for the purpose of testing the validity of the patent is outside the issues of this case. We are not prepared, and I put in no testimony on that.

The Court: This is cross examination, and I think we can get these questions answered quicker. Of course, I can see what is in the drawings myself, having had a day and a half on rather detailed education on that. I think I can see pretty well what is in the drawings, but counsel may wish to get something into the record on cross examination, as you did on direct, so I will permit it.

Mr. Subkow: Your Honor has ruled, so I accept it, but may I make this additional comment, and then I won't have to make it further in the examination. This evidence, which is introduced without objection, may be made the basis of a [204] motion to amend the complaint or the pretrial conference order, and I don't want to be met with that situation.

The Court: Counsel has disclaimed any such intention.

(Testimony of Cleon James Moon.)

Mr. Subkow: Will that apply to all such evidence put in outside the four issues framed at the pretrial? If that is the case, I won't have to rise to make the objection.

Mr. Kenway: Let me say at this time that I am pretty happy with the pretrial order and the issues as stated therein, and I am not going to ask this court to decide this case on any other than the issues as stated therein.

The Court: Does that answer your question?

Mr. Subkow: I will accept the stipulation.

Mr. Kenway: And I hope that I can perhaps continue with the examination.

The Court: Proceed, Mr. Kenway.

Q. (By Mr. Kenway): In your patent at column 2, beginning at line 26, you say:

"As a result of this arrangement, the reactive thrust and the static load imposed on opposite sides of the front axle are in balanced arrangement, thus imposing no tilting force about any of the axles of the truck."

You would agree, would you not, that that statement is also true of the construction shown in the McEwen patent?

A. Yes, that structure is true—that construction is [205] true of the McEwen patent, or, that statement is true.

Q. Now, do you recall that I took your deposition out here last year? A. That's right.

Q. And at page 10 of your deposition——

(Testimony of Cleon James Moon.)

Mr. Subkow: Just a second. May the deposition be placed before the witness?

The Court: Is it on file?

Mr. Kenway: Yes, it is on file.

The Court: Do you have it, Mr. Clerk?

Mr. Kenway: It is our Exhibit U.

The Court: Place it before the witness.

(The document referred to was handed to the witness.)

Mr. Subkow: May I ask what page that reference was?

Mr. Kenway: Page 10.

The Court: What portion do you wish the witness to read?

Mr. Kenway: Well, I don't think he needs to read from it. I just want——

The Court: I always permit the witness to read to himself the question and the answer, if you seek to impeach him, so that he may have an opportunity before the impeaching question is put to refresh his recollection as to what is being talked about.

Q. (By Mr. Kenway): I call your attention to the portion [206] at page 10 of your deposition, beginning at line 14 and ending at line 21. Would you read that over, please, to refresh your recollection.

A. (Examining document.) I have read it over.

Q. What you say there in your answer to my question is still your testimony today, is it not?

A. That is correct.

Mr. Subkow: Your Honor, may I call the atten-

(Testimony of Cleon James Moon.)

tion of counsel that the portions indicated do not complete the statement or the testimony, and give, I think, an entirely false impression, unless the further question is asked——

The Court: Mr. Subkow, the plaintiff, or, rather, this witness is a very intelligent witness. He can take care of himself on that. [207]

The Witness: I would like to continue in that respect. This applies——

Mr. Kenway: If you please, sir. Mr. Subkow can take care of that on redirect examination.

The Court: He may explain, if he wishes to.

Mr. Kenway: All right.

The Court: He may explain any answer he makes.

The Witness: This applies to an entirely different class of mast. It applies to a mast that is shorter, is thinner, and has much less capacity.

The Court: What is "this," now? What is it that you are speaking of?

The Witness: My explanation from line 16 to line 21 on page 10.

The Court: Don't you think it better be read into the record so the record will be intelligible at this juncture?

Mr. Kenway: Yes. Why don't you read your answer to that question?

The Court: Read the question and the answer.

Mr. Kenway: All right. My question was,

"Would you then tell us in your own words, please, what the invention was that you made?"

(Testimony of Cleon James Moon.)

And would you please read your answer?

The Witness: "A. The need for a drive-in type of unit using a large capacity portable derrick has [208] been known for quite a while. In fact, some of the early well-drilling hoists with pole masts were drive-in types of units. I wouldn't claim that the idea of the drive-in unit was original with me."

Now, the reason I wouldn't claim that it was original was because my type of unit and the early pole mast types of units were entirely different units. The arrangement of all the components, the supporting structure, the mast itself, were entirely different. And for that reason that statement was made.

Q. (By Mr. Kenway): Pole mast units are still being used today, are they not? A. Yes.

Q. And still being manufactured?

A. Yes.

Q. As a matter of fact, some of your licensees make pole mast units, do they not? A. Yes.

Q. Would you agree, Mr. Moon, that safety regulations of most operators provide that there be no one in the cab while the derrick is being erected or retracted?

A. I know of no such regulation.

Q. Do you regard it as a safety practice for someone to sit in the cab while the derrick is being erected or retracted? [209]

A. Well, no, I don't regard it as a safety practice. That is one reason we put the controls outside when we built our unit.

(Testimony of Cleon James Moon.)

But I explained in my testimony that at frequent times when an operator has not been satisfied with the spotting of his derrick, either in a drive-in type or a back-in type, he has gotten into the cab and has changed the original position of the mast with the mast up, and that I did not consider that he was nearly as safe in a back-in type as he was in a drive-in type.

Q. He is not particularly safe in either type, is he, if he does that?

A. Actually, he has a pretty good steel framework around him at a point where there would be less energy, less force in the drive-in type than there would in the back-in type.

Mr. Kenway: I will offer in evidence at this time the deposition of Mr. Moon as Defendants' Exhibit U.

Mr. Subkow: Does that include the exhibits that are attached to the exhibit?

Mr. Kenway: I will offer the exhibits separately.

The Court: The deposition, without exhibits, is received as Defendants' Exhibit U in evidence.

(The exhibit referred to, marked Defendants' Exhibit U, was received in evidence.)

Mr. Kenway: Mr. Clerk, would you find our Exhibit G, the photograph?

(Whereupon the exhibit was placed before the court.)

Mr. Kenway: I will hand my copy to the witness.

(Testimony of Cleon James Moon.)

(Whereupon the document was handed to the witness.)

Q. (By Mr. Kenway): Looking at Exhibit G, Mr. Moon, I have reference to your direct testimony that the forces about the forward axle were in balance.

Mr. Subkow: May we have the identification of that exhibit in the Moon deposition, counsel?

Mr. Kenway: The Moon deposition, Exhibit 7.

The Court: In other words, by that you mean that Defendants' Exhibit G for identification is the same exhibit that was referred to in the Moon deposition as Exhibit No. 7. Is that it?

Mr. Kenway: That is correct, your Honor.

The Witness: To what part of my deposition are you referring?

Mr. Kenway: I am not referring to the deposition. I am referring to the testimony you gave us earlier at this trial, particularly with reference to Figure 6 of the patent in suit.

The Witness: Yes.

Q. (By Mr. Kenway): You were explaining how the loads were transmitted to the ground, and so forth, and you explained, [211] as I recall it, the forces were in balance with respect to the front axle and the bracket 26, and so forth; and that you did not have excessive bending moment in the frame and the chassis.

Now, if I haven't recalled what you said accurately, please correct me. Is that substantially what you told us?

(Testimony of Cleon James Moon.)

The Court: Well, why don't you ask him a question? The record will show what he testified to.

Q. (By Mr. Kenway): Well, my question then is this, with respect to Exhibit G: Would you say that there had been excessive bending moment in the frame of the chassis adjacent the front wheel?

A. Yes. That is obvious.

Q. And that is a Waldrip unit shown in the photograph, is it not?

A. Yes, it appears to be.

Mr. Kenway: I will offer the photograph in evidence as Exhibit G.

The Court: The copy I have has some markings on it, 13, 14, 15, 16, 17, 18. I take it that those are made intelligible by defendants' exhibit U, the Moon deposition?

Mr. Kenway: Yes, your Honor.

The Court: Very well. Received in evidence.

(The exhibit referred to, marked Defendants' Exhibit G, was received in evidence.) [212]

Q. (By Mr. Kenway): Did you ever design any fire-fighting equipment, Mr. Moon?

A. No, sir, I never have.

Q. Would you think that over and make sure? Are you sure you didn't?

A. I vaguely recall a piece of airport fire-fighting equipment, a fog job that I did some of the drafting on. I couldn't say that I designed it.

Mr. Kenway: Your Honor, I have been trying to make this as brief as I could, and I think that I

(Testimony of Cleon James Moon.)

could shorten it even more if I could have a couple of minutes to go over my notes.

The Court: Yes. Take your time.

Mr. Kenway: No further questions, your Honor.

The Court: Any redirect?

Mr. Subkow: Just a few questions.

Redirect Examination

Q. (By Mr. Subkow): With regard to Exhibit 7 of the Moon deposition, Exhibit G, do you have any knowledge as to why that failure occurred?

A. No, I don't. There are many things that can cause a failure of that type.

Q. You have no knowledge of what caused this particular—— [213]

A. I do not know what caused this failure.

The Court: What are some of the things that would cause a failure of that type? A windstorm?

The Witness: Well, a windstorm could conceivably do it. But, your Honor, I have repaired vehicles and masts of this type, supervised their repair, of practically every make. One of the predominant reasons that an accident of this type occurs is due to air in the hydraulic system. That hydraulic ram, or set of rams that pushes the mast up is full of hydraulic fluid as the operation takes place.

Now, that mast might stand for several days. And packings are rather fallible things. They do not form a perfect seal around the ram. The ram gets corroded, or dirty, and causes the packing to

(Testimony of Cleon James Moon.)

leak to a certain extent. And as the weight of the fluid against the packing occurs, a little bit of the fluid leaks out.

Now, the crew has instructions to bleed the ram, to fill it back up again. And there's a way of doing that. If they forget and do not do it, the ram starts over center and falls against a cushion of air. Air is elastic. And it goes down until it hits the fluid column, at which time there is a terrific impact multiplying many times the normal bending moment, the normal force that would be applied against the frame. And that is one of the biggest reasons for failures of this type. [214]

The Court: The mast falls because the frame falls first, is that it?

The Witness: Because the hydraulic cylinder doesn't have any fluid in it to support the mast. The hydraulic cylinder has to be full of fluid. Air is not sufficiently strong. It is too elastic to support the mast, and the air compresses until it hits the remaining amount of fluid in the system, and then suddenly stops.

The Court: Do all of these things rely upon the hydraulic pressure from the ram to hold the mast up?

The Witness: Well, there are types of masts in use today that are raised by wirelines rather than by hydraulic systems.

The Court: I suppose the hydraulic system would be very satisfactory for raising it, but would be quite unsatisfactory for maintaining it there?

(Testimony of Cleon James Moon.)

The Witness: The hydraulic system is never any better than the maintenance that goes into it.

Q. (By Mr. Subkow): Clearing up a point, does the hydraulic cylinder hold the mast into erect position?

A. No. The mast, as it goes over-center leans against the back guys. That is one of the reasons that hydraulic cylinder loses its charge. It is standing there without any pressure in it. It leaks down.

The Court: The pressure is not on it? [215]

The Witness: The pressure is not on the ram during the well-pulling operation.

The Court: So the pressure put back on again, is that when the failure occurs?

The Witness: Yes, sir, that's right.

The Court: In lowering the mast?

The Witness: In lowering the mast.

Mr. Kenway: Could I ask a question there: With respect to Exhibit G, could there have been a frame failure due to the failure of the operators to extend the auxiliary jacks that support the frame back of the front wheels?

The Witness: Well, actually I don't believe so, because our calculated moment diagram indicated that we only had about a 10 per cent additional load if we did not put that support jack under the frame. Consequently, the factor of safety built into the frame, which is approximately 2, should have taken that 10 per cent overload without failure.